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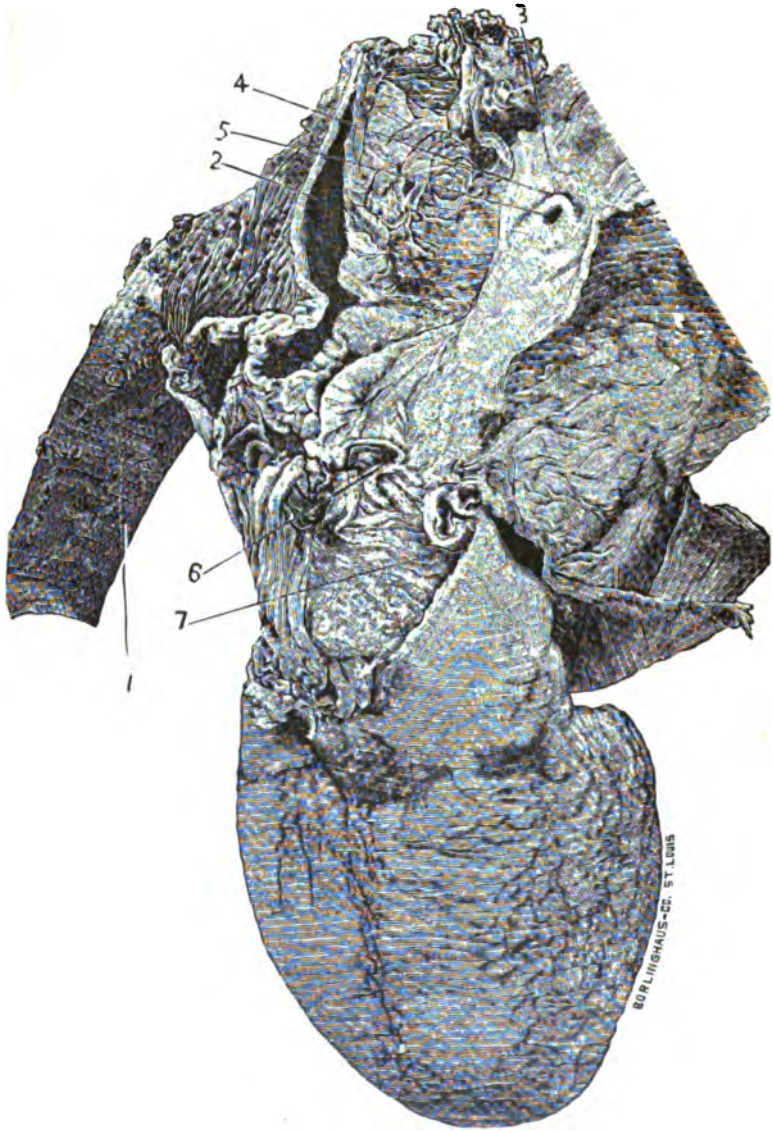

1. Aorta. 2. Trachea. 3. Vena Cava Superior. 4, Brachio-cephalic Orifice. 5. Arterio-venous Opening. 6. Spot of Inflammatory Puckering. 7. Right Auricle.

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1. Descending Aorta. 2. Aortic Orifice. 3. Pulmonary Artery. 5. Arterio-venous Opening. 6. Calcareous Nodule.

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Vena Cava Superior. 4, Brachio-cephalic
6. Spot of Inflammatory Pucker-

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1. Descending Aorta. 2. Aortic Orifice. 3. Pulmonary Artery. 5. Arterio-venous Opening. 6. Calcareous Nodule.

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In this paper I report a case of aneurism of the ascending aorta communicating with the superior vena cava. I can find no record of a similar case in this country.

Dr. H. M. Pierce, living near Nashville, Ills., was referred to me by Dr. E. H. Gregory. He was fifty-seven years of age, had enjoyed good health up to the autumn of 1883, with the exception that ten years before his entire beard had fallen out, but had subsequently grown. He had also met with several accidents. About ten years previous, in a railroad collision he was thrown violently forward, striking his chest against the back of a seat. About 1881, he was thrown from his horse, injuring his shoulder and clavicle. In 1883 his chest was injured by being crowded by a horse in a stall, but from none of these accidents did he suffer any permanent inconvenience.

In the winter of 1884 a certain amount of dyspnea was evident on making violent or unusual exertion, without any impairment, however, of ability to pursue his usual routine of duties during the winter. April 1, 1884, on lifting a man who had fallen from a horse, he felt a sudden rush of blood to the upper portion of his body, he became faint but did not fall. As he expressed it, everything grew black to his eyes. In a moment these sensations disappeared, and he walked some distance feeling nothing unusual except extreme tightness of his collar; he experienced no special dyspnea or pain. Happening to glance at his hands he noticed that they were swollen and purplish. His friends remarked on the peculiar purple and swollen appearance of his neck and face.

An examination of his body later showed a general edema of all that portion above the diaphragm, with visible enlargement of the superficial veins.

Dr. Pierce consulted me April 14, 1884. He was then feeble, and suffered a certain amount of dyspnea on any exertion; for example, he had to walk very slowly and with care.

On examination I found his face and chest swollen and edematous, his eyes partially closed by the swollen lids. His hands and arms were greatly swollen, the skin tense and hard, pitting deeply on pressure, the pits remaining a considerable

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time. His face, neck and ears were a deep purple color; the skin was marked with numerous spots of ecchymosis and the superficial veins visibly enlarged, showing numerous venous knots. The portion of the body below the diaphragm was entirely free from edema. The pulse had the jerking character usually associated with aortic regurgitation; there was swelling of the jugular veins and a noticeable impulse to the liver. On examining him, percussion showed dullness over the sternum, extending to the right and a little to the left, from the second to about the fourth cartilages, more to the right than to the left. A distinct circumscribed pulsation was felt over the dullness, accompanied by a well-marked, purring thrill, felt at the right edge of the sternum. On auscultation a loud, harsh systolic murmur was heard most distinctly over the pulsation: this could be heard with great distinctness also over the whole chest front and back and in the arteries, including the brachial. An exquisite purring thrill was heard above the third right costal cartilage. A harsh diastolic murmur, ending with a musical intonation, was also present, heard over the sternal region. This was not heard over the rest of the chest. The first sound over the aorta was obscured by the murmur, the second sound could be heard at the end of the diastolic murmur. The mitral and pulmonary valves appeared normal. The tricuspid first sound was obscured by a blowing sound.

The diagnosis of varicose aneurism with communication between the aorta and superior vena cava in this case was made, first, from the usual signs of aneurism, *i. e.*, a pulsating tumor distinct from the heart, a double murmur independent of heart sounds, heard over the aorta.

The communication with the vein was surmised from the thrill, the sudden occurrence of the edema, the ecchymosis and the venous enlargement confined to the portion of the body above the diaphragm, with the bullet pulse of the arteries, and absence of the signs of aortic regurgitation.

Dr. P. G. Robinson of this city was called in consultation in this case and fully agreed in the diagnosis.[1]

1. The above report of the first examination and diagnosis was published in the May 1884 number of the ST. LOUIS COURIER OF MEDICINE.

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Dr. Pierce called on me again May 27. I then found a great change in the symptoms and physical signs. The edema of the upper portion of the body had in a great measure disappeared; the tense infiltrated condition of the arms had become soft and natural except in spots of two by three inches in size on the under surface of the arms: these still pitted deeply and the pits remained when pressure was removed. The ecchymosis had largely disappeared as also most of the swollen veins. A slight swelling of the feet had commenced. On examination the extent of the dullness had increased; the thrill had almost entirely disappeared, and the diastolic murmur was very faintly heard immediately over the dullness; it had lost its metallic ring. The systolic murmur was still heard over the chest, the aortic second sound was clear and distinct, the mitral sounds were clear and normal. The tricuspid first sound was covered by a blowing sound, the apex of the heart could be felt in the seventh interspace within the mammary line. An impulse could be detected on the under surface of the liver. The pulse had lost its peculiar bullet character.

In my notes of the case recorded at this time I attributed these changes to the fact that the aneurism probably had enlarged greatly and that the communicating orifice of the vein had thus been brought outside of the direct current of the arterial blood and that the flow of arterial blood into the vein had thus been lessened.

Dr. Pierce reported that at times his legs had become so much swollen that it was necessary to bandage them; this swelling however was transient.

I saw the patient again about the first of October; he reported that soon after his second visit he began to experience an increased shortness of breath and great dyspnea on making exertion. He was then examined by Dr. Hughes, of Nashville, who found hydro-thorax to be present. For this Dr. Hughes aspirated, drawing off a considerable amount of fluid. From this time until the latter part of the summer he was aspirated about twenty times, each tapping giving from forty to fifty fluid ounces.

He came to St. Louis to reside about the first of October.

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His general health and digestion were fair; when quiet he was comfortable, but any attempt to walk brought on dyspnea. There was considerable edema over the whole body, the abdomen being swollen and superficial veins large and prominent. Examination showed a large increase in the extent of dullness extending over the front of the chest; the impulse over its former site could not be felt but was perceptible to the left of the sternum at the third interspace. The systolic bruit was still heard over the chest, but very faintly; a very short and faint diastolic murmur was also heard about the second cartilage; a third short murmur was heard at the same point, seeming to cross the other murmurs. The heart beat was very feeble, at times imperceptible. The pulse had entirely lost its peculiar jerking characteristic.

The respiration was feeble, more so on the left than the right, the bronchial mucous râles were heard behind. The patient grew weaker from this time on, the dyspnea became more and more marked on any exertion. and the edema of the lower portion of the thorax became very marked. In the last few days the left side of the chest with the neck and face became excessively edematous, in marked contrast to the right. October 27, edema of the fauces and larynx was noticed; a marked cyanosis with dysponea began and increased until his death October 31.

During his residence in St. Louis he was seen at different times by Drs. P. G. Robinson, J. B. Johnson, G. Baumgarten, E. H. Gregory, G. A. Moses, N. B. Carson and several other physicians.

Post-mortem was made November 1, by Dr. N. B. Carson in the presence of Drs. Robinson, Moses, Tupper, Boisliniere, jr., and Dr. Frank A. Glasgow.

The lungs were found engorged with blood, both lungs attached to the chest walls in front by extensive and strong adhesions; about a gallon of fluid was found in the pleural cavities; there was no fluid in the pericardial sac; the left ventricle was hypertrophied without dilatation, the right ventricle was slightly hypertrophied and dilated, the right auricle was enormously dilated, the superficial vessels of the heart were enlarged. The valves were healthy with the exception of a slight

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roughness at the edge of the tricuspid, which was insufficient.

A true aneurism of an irregular globular form was found in the first portion of the aorta, measuring four and three quarter inches in diameter; this extended to commencement of the arch immediately below the entrance of the innominate artery. A pouch of the aneurism extended upward alongside and partly behind the arch. The walls of the aneurism were highly atheromatous, studded with numerous masses of calcification, some as large as a pea. The upper right side of the sac and a portion of the pouch contained a thick shell of laminated fibrine; on removing this there was found a rounded opening into the vena cava superior, of the size of a goose quill. The vena cava superior was greatly dilated, being about seven-eighths of an inch in diameter; the opening into the aorta was immediately below the brachio-cephalic orifice. The inner coat of the vena cava showed signs of inflammatory change. Just above the entrance into the auricle, a spot of cicatricial puckering of the size of a silver half dime was found, evidently of inflammatory origin. Beneath this a nodule of calcareous matter could be felt.

The vena azygos was greatly enlarged. The intermediate wall between the vein and the artery was very much thinned, and the tissues consolidated by inflammation. A little above its entrance into the cava, the left innominate vein was found compressed by the pouch of the aneurism and greatly dilated above. The pulmonary artery was also compressed. The entire arch showed signs of atheroma. The inferior cava was greatly distended.

The post-mortem thus verified the diagnosis made in the spring and explains the remarkable change of symptoms.

I think the communication was probably due to an ulceration and softening about one of the calcareous masses. A portion of the detritus was caught in the vein and was the cause of the extraordinary inflammatory puckering seen in the lower part of the vena cava.

The site of the opening in the earlier stages lay directly in the line of the arterial blood current receiving the full force of the ventricular contraction. By the growth of the aneurism it was

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removed to the outside of the direct force of the current, and the afflux of arterial blood into the vein was thus lessened, and at last entirely prevented by the shell of fibrine.

The unusual third murmur I believe to be due to an eddy formed by the pouch of the aneurism; the pressure on the left innominate vein in the last days by the pouch would explain the excessive edema of the left side of the neck and face, whilst the cyanosis was evidently due to the intense congestion of the lungs caused by pressure on the pulmonary artery and the veins.

We find in this case a confirmation of the view of Walsh, which has been largely disputed, that a pure hypertrophy of the left ventricle may be the result of aneurism of the aorta without any disease or change of the aortic valves.

In this case seven months elapsed between the time of the rupture of the aneurism and death. This is in marked contrast to the cases reported by Mayne and Hayden.

The accompanying plates, taken from photographs by Guerin, show the arterio-venous opening and the other points of interest in the specimen.

VALEDICTORY ADDRESS.

BY PRESIDENT T. L. PAPIN, M. D., LL. D., *at the Seventh Annual Commencemennt of the St. Louis Obstetrical and Gynecological Society, November 20, 1884.*

GENTLEMEN:—The marvellous advance of the physical sciences in our day is a subject of wonder to every thoughtful mind. Could Bacon awake from the sleep of centuries and look abroad upon the face of society, even he, the father of inductive philosophy, would be amazed at the results which have been produced with the instrument which he fashioned for the use of the world. "Almost day by day have we fresh shoots and buds and blossoms which are to ripen into fruit on the magical tree of knowledge which he planted, and to which none of us, perhaps, except the very poor, but owes, if not his present life, at least his daily food, his health and general well-being."[1]

1. Cardinal Newman.

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We have become so accustomed to these things that they seem almost a matter of course, and we, in a manner, forget that they all are the results of the application of scientific discoveries to the daily conveniences of ordinary life, and that such discoveries are the outcome of repeated observation and comparison of natural facts, and the discovery and verification of the laws that govern them. In a certain sense there is, perhaps, nothing new under the sun; and those who lived a thousand years ago had a forecast or perception of things now deemed the peculiar and greatest discoveries of our day; but it was of the potential only, somewhat as he who observes that the lid of a vessel in which water is in ebullition will be forced from its seat unless weighed down, becomes possessed substantially of the knowledge of the expansive power of steam and its possible capabilities; but between this, so to speak, embryotic knowledge and the same expanded, and exemplified in the steam engine in operation, the distance is greater than can be measured by generations.

As scientific knowledge advances, it becomes more exact, and necessarily tends to divide itself according to its subject matter. This knowledge, as we have said, consists of facts and the laws that govern them. Now, facts are as many as the sand grains on the sea shore, and, although they arrange themselves in groups according to their affinities, each group examined in detail is found more multitudinous than the whole seemed when viewed collectively. These groups constitute the separate natural sciences—each standing apart by itself, each a world in itself. And, besides, every day is adding to these facts, so that the mere catalogue of the annual discoveries in electricity, heat, light, mechanics, astronomy, botany, etc., is a huge work; they form a chain, which at each remove in years is lengthened more and more, so that the number of its links (present and future, but no longer capable of computation) is pure conjecture.

Need it be a matter of surprise, that among the devotees of natural science, those who have desired to acquire a mastery of what they study, to go to the bottom of the thing, become thorough in what they are interested and know all that is knowable

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in it, have also separated themselves into groups corresponding to the natural groups of which we have just spoken, and each, occupied with that he has selected, finds therein sufficient to tax his time and mind to the utmost?

This is the principle of specialization.

There are those who devote themselves to the study of the heavens, and we call them astronomers; to the flora of the world—the botanists; to the investigation of heat, light, and electricity—the physicists; and so on through the cycle of natural sciences. And do we not observe the same thing in those whose vocations lie in the immediate application of the natural sciences to the needs of daily life? The carpenter, the brewer, the mason, the iron-worker each has a generic trade with separate divisions, and the workmen in each division, oddly as the term may sound, are practical specialists.

If we turn to what immediately concerns us, the medical art, does it not too, rank among the natural sciences, is it not one of them, largely at least, and has it not partaken of the life and movement, progress and development we but a moment ago were considering? We who are its adepts know that it has. We know that the curative art of to-day—although in principle what it was two thousand years ago, is as widely separated from that of the fifteenth century, for instance, as the simple tea-kettle, of which the lid is forced upward by the confined steam, is from the locomotive boiler supplying power to the ponderous machine of which it forms part, by whose potent agency it speeds from point to point with a velocity and regularity surprising to witness.

But the medical art is more than any natural science: it is broader in scope, includes more and is vastly more important. And its methods, though also inductive, differ in their application.

Medical science is broader, I say, because it has directly to do with man—who, of all created beings in the visible universe, is the noblest and highest in his powers, capacities and organization, because it is the study of the physical man, the laws that govern his growth and development, the laws by which he is maintained in his normal bodily and mental condition.

I say that it includes more, yea, far more; for after all natu-

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ral science, as such, begins and ends with matter and its laws. The phenomena of the universe—all that we see, hear, taste, touch, guage and measure—constitute the domain of natural science; its greatest discoveries, its grandest triumphs, its beginning and its end are within this domain. But the medical art has not only to take account of mere physical laws of matter, but must and does grapple with what is beyond inanimate or physical nature, with a spirit that ever lives and a tendency that ever operates within man, undiscernible by the senses, conjoined to his corporal existence, yet distinct from it, not of its nature, yet influencing its physical condition, oftentimes powerfully. And emanating from this dual organization, if I may so call it, he possesses a quality, a something, which, though common to the race cannot be classified because specially different in each person; we may give it a name; we call it individual constitution. No one can define it; no one can tell what it is; often the physician's best friend; sometimes his invincible antagonist. This reserved force of nature, inherent in man, we cannot formulate; we must content ourselves with recognizing it—use it, but not seek to go further. With the physical man and his idiocrasies and idiocyncrasies; his multitudinous sicknesses and accidents, his varied conditions from childhood to old age, his marvellous strength in battling with disease and his infantile weakness in succumbing without reason, apparently, to its attacks, with all these things is the medical art concerned.

I have said that the inductive method is applied differently in medicine than in other sciences, and the reason is simply because all our generalizations, however well founded, are subject to an exception in each particular case, which we cannot always foresee; and, as we have to deal, not with brute matter, the form of which we may destroy, if we like, but with the human body, not only living but animate, with a soul eternal, we are, by precept human and divine, bound to have most careful regard. We cannot lawfully force upon it, in the particular, regardless of what may be the result, that which is undoubtedly proper in the general.

As science proceeds with its observations and experiments, it gathers its facts and establishes its laws and then is securely

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governed by what it has established; but in the practice of medicine, I do not say the preliminary studies, or the beginnings of their application, but with the practice of the experienced physician, there is oftentimes a something, almost an instinct, an interior voice, all the result of long observation and experience, which seems like intuition, which is worth more, not than his science, but more than his formulas and rules, which seems to give a clear understanding of what is most proper to be done. It may be compared to the judgment on countenances, difficult to explain or account for, nevertheless in the main correct.

Now, in dealing with so complex an aggregation of facts as the human body, we have before us a vast field; so vast indeed, that it is no degradation to talent and learning to say that it is beyond the power of any single person to master the whole. In fact experience has taught us that a life-time may be devoted to a single branch of the curative art without exhausting the subject. Surely what is true of the mechanical arts and of other sciences must be true of medicine, that if one wishes to be in the highest sense competent and thorough, to know all that can and should be known, and to produce the best results, he must narrow and not broaden the scope of his efforts, take a particular branch or department and give it his most serious thought and patient, careful investigation. Expertness and success in the medical art are convertible terms. The concentration of effort and observation within a limited field is certainly of itself a powerful means to perfect special knowledge since it is the daily multiplication of kindred experiences which after all, are, like the leaves of a tree, alike, and yet with distinguishable differences, as the same foliage scrutinized leaf by leaf.

Again, it is to be remembered that, although medicine has its theories, and hypotheses and conjectures, it is above all a practical art. Its one paramount object and end is to relieve physical suffering, to cure disease, to remedy bodily injuries, to save life, or at least to prolong it. Now, where there is question of material structures, it is not of serious moment whether the knowledge that designs and the skill that erects them, is thorough knowledge, thorough skill, providing those for whom they are built are satisfied, and there is no risk of endangering life, or limb; but it is not

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thus in medicine. *An incompetent practitioner has no right to practise.* And I go further and say that, in the curative art, a man is not only bound to do his best on all occasions, but to prepare himself by conscientious and thorough studies to do all that he is capable of doing according to his capacity. A professor may teach false science and persist in his error or retrace his steps; a workman may erect a structure which, on account of its worthlessness, or insecurity has to be torn down, or a machine so defective that it will not work, and the loss after all is only pecuniary and falls on himself; but in medicine a fatal mistake is irremediable. If such a mistake be the fault of him who commits it, he stains his conscience with a terrible crime, none the less terrible though shrouded forever, it may be, by the veil of secrecy.

Such being the science of medicine, is it surprising that it is subjected to the laws of specialization, that it has given birth to specialties? So far from it, that in this day, knowing what the medical art should be and is capable of effecting, were there no specialists, it would be the duty of the profession to form and encourage a corps, the members of which should be bound to devote themselves exclusively to certain particular branches or classes of diseases. We do not mean by this that each physician should become a specialist, though in a certain sense the earnest, bright, general practitioner is in reality, though not in name a specialist; since in the case of each respectively, there are diseases or conditions of life requiring medical assistance of which either through natural aptitude or particular attention given or more frequently from experience, he acquires a much more masterful knowledge and command than others. But there are classes of ailments so varied, so widespread, requiring such particular knowledge and skill for their treatment to the best advantage, that they become of themselves a subject of careful study and afford alone ample field for labor.

I would be untrue to my meaning, to the cause I represent, and to this Society, if I encouraged the opinion that a physician may, if he feels himself called thereto, be a specialist and nothing more. A man who starts out in the profession with the sole aim of being a specialist and lays a foundation only so

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broad as will, in his opinion, suffice for his particular science to rest upon, not only makes a great mistake but commits a grievous wrong against himself, his profession and his fellow man. I have said it was the duty of the practitioner not only to do his best in every emergency, but to be fully equipped to do that best. Now, he that goes into the ranks of specialists provided only with such acquirements as immediately concern his vocation can never understand that very specialty itself. For, bear it well in mind, it is not the ordinary run of cases, in which Nature of herself does by far the most, the doctor the least, but the exceptional ones, in which, if the skill that treats them be not thorough ruin will follow, through which the real necessity of a specialist is shown. These "exceptional cases unfortunately but too often reveal themselves fully, only after they have been taken in hand. Were the human frame a mechanical apparatus that could be taken apart like a watch, its broken wheels mended and the whole put together and set running again, then such narrow knowledge as we have been considering would answer; but, although the body is made up of parts and distinct organs with their separate functions, these parts and organs have intimate relations on all sides, and so intimate that while it is true the seat of a disease, or source whence it comes may be located beyond doubt, it is certain that other parts and other organs may be and are affected; and the disease spreading to them as it were, through means of these very relations, thus all functions of the body in part or in whole become perturbed. Again, a complication is a most common occurrence, either at the commencement or during the development of disease, or a potential poison may abide in the individual during years of health and vigor to be brought into activity and life, and thus completely mask the first disease, or rather mask the determining activity of this long dormant potential disease; witness cases of secondary syphilis. Must not the specialist know all this? Must he not be prepared for all this? Unlike the lawyer, he may not go to his library and read up his case. In many cases immediate action and in the true direction is needed to avert much mischief. The specialist must then be well-grounded in general practice; if not, he will be but poorly able to grapple with the

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different phases of his patient's malady; his diagnosis will often be incomplete, sometimes positively erroneous. In fine let us say it in plain words, instead of being a true specialist, he will be little better than a quack, with an excellent instrument in his hand to be sure, but of whose proper use he is ignorant. I would say, then, that it is not only the duty of the specialist to equip himself with the knowledge which is the foundation of medicine as a science, and its guide as an art, but, that he should be fully qualified to be in any emergency a general practitioner.

Practically I think it will hold good that few physicians in the long run have been reasonably successful as specialists, whatever their original intentions were, who started out as such, but rather those who began as general practitioners and gradually narrowed their scope until finally they came within the circle which they drew as the limit of their labors or to which occasion, inclination, or natural talent and aptitude guided them, and thus became specialists. Indeed, to borrow a favorite scientific term of the day, a specialist should be evolved from a general practitioner.

Before closing these remarks it would seem meet and opportune to touch, at least cursorily, upon a question, relating not to learning or skill, but to professional ethics and partly to moral right and wrong as regards the specialist, whether he may at the same time be a general practitioner, and if so, what restraint, if any, he should put upon himself. I will not go so far as to dogmatize by saying that a specialist must not be a general practitioner, but it appears to me that it were best for him to closely adhere to his specialty, at least in large cities.

For, first, if there be need of the specialty to which he is devoted, it is because it is assumed to require more study, greater experience, more perfected skill than is likely to be found in the general practitioner; and, second, it is scarcely fair to his fellows; for, as a rule, many of the patients of the specialist, either directly or indirectly, are sent to him by the general practitioner, but sent for only a specific purpose and on the supposition that he confines himself to his specialty; and thirdly, and I wish to lay down the rule broadly, it will usually be found that for a man to acquit himself of his duty after the highest stand-

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ard he must choose between the two—be a specialist and keep within his province—or a general practitioner.

But, gentlemen, however the question may be concluded on the reasons just presented, one thing must be admitted, that the specialist who is at the same time engaged in general practice, is bound in honor and still more by justice to lay a certain restraint upon himself in regard to the patients and their families sent him by his fellows. These patients are brought under his notice, confided to his care on the score of his reputed skill, which there is reason or at least hope to trust will prove successful in effecting a cure. Shall he then take an advantage of this to influence these patients, or to accept them, if they voluntarily call for his services in other classes of diseases than those of his specialty? I am sure I carry you with me in reprobating such conduct as ungentlemanly, unprofesssional and dishonorable, as a breach of confidence and trust. Honor and justice should prevail. Especially do these virtues become men of our profession on account of the grave responsibilities we assume on entering its ranks.

We have enrolled ourselves as members of a society whose aims are specialties, therefore we should not shrink from proclaiming the principles that underlie them, asserting and vindicating the laws of honor and of justice that should govern all specialists in whatever branch of the profession they may practice their art.

ON FEVERS.

BY E. R. ARMISTEAD, M. D., PRESCOTT, ARK.

IN the outset, I trust I shall be permitted to enter an objection to the nosology of what we variously denominate malarial or miasmatic fever with typho-malarial, swamp fever and what is sometimes called "this slow fever."

Malaria means, evil or foul air, and as there exists foul air on ship-board, in hospitals and prisons, as well as in densely

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crowded localities in cities where proper sanitation is neglected, and where people are made sick from atmospheric impregnation with emanations from cholera, yellow fever and many other diseases but are not afflicted with our type of malarial fever, it is not scientific to name a disease marked with well recognized phenomena after an external atmospheric condition.

We have numerous blood conditions definitely described by their very nomenclature, *e. g.*, we have pyemia, or pus absorbed into the blood, uremia or uric acid in the blood, septicemia, blood poisoned by the absorption of septic matter, etc. Then, would it not be better nosology to call our prevailing "malemia," fever, or as it is distinguished in some instances by gastric, gastro-enteric or enteric symptoms, to name it after its most salient and conspicuous symptoms? So much then for the nosology.

Now there can be no doubt that there exist in certain localities atmospheric conditions favorable to the production of the form of fever under consideration; and it is generally believed that the poison, whether a gas or microscopic organism, finds its entrance into the human system through the pulmonary circulation and in this way alone. Is it not a curious fact that if the gas or germs enter the lungs and thence pass into the circulation, the organs of respiration and circulation nearly always escapes harm and those of nutrition and secretion suffer most? It is true the first lesion is of the innervation which presides over all other systems, and when it becomes disturbed and that mutual relation and dependence which exists between the respiration and circulation and the operation of the automatic discharging centres of the medulla oblongata become deranged, we then have the phenomena of fever.

The doubt I desire to express in this connection is whether all these results follow the inhalation alone of the miasmatic poison; and I also desire to express a belief I have long entertained, that the germ, if it be such, or gas, as the case may be, may find an entrance into the system with the ingesta, with the food of the poorly fed, who suffer with mal-nutrition, or with the water they drink; at any rate it cannot be denied that the nutritive organs suffer most, and most directly, the stomach and

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bowels, the liver and spleen, and in fact all the organs concerned in waste and repair.

The germ may possibly be discovered by the aid of the microscope—that is at present hypothetical. The low organism may exist as a factor in all the phenomena of malarial, typho-malarial or "this slow fever." But it cannot be demonstrated by that instrument by what road it traveled to find its habitat in the organs of nutrition.

Fothergill in a monograph entitled the Antagonism of Medicines, on page 123, used this language, "The relation of pulmonic respiration with cutaneous respiration and the occurrence of perspiration when the respiration is impeded suggests the hypothesis alluded to before," etc.

This quotation is introduced here merely to inquire what is meant by this learned author by "cutaneous respiration." It must mean the passage through the skin of carbonic acid gas and the absorption into the system of oxygen through the same organ. Now, if this function is possessed by the superficies of the body, is it not possible for the malaria to find here an opening through which it can enter the circulation? There are many evidences in support of this hypothesis. We know the skin possesses exhalants, which pour out the watery portion of the circulating fluid, and these small cutaneous vessels seem to possess the power to secrete the perspiration from the other elements of the blood. If they are exhalants, may they not also possess the functions of inhalants. In further support of this hypothesis we know that remedies are introduced into the system by being rubbed upon the surface.

Now, that the bacillus, bacteria or the micrococcus of Prof. Koch crawls into the human system through these cutaneous openings is alike shocking to the reason and feelings.

If, on the contrary, the poison be a gaseous emanation, the result of heat, moisture, and vegetable decomposition, we can the more readily conceive of its cutaneous absorption and its effects upon the ramifications of the terminal nerves, causing the first lesion in fever, enervation to be extended to the vaso-motor system and followed by impeded circulation, local or general stasis or congestion, chill, reaction fever, and if the exciting cause or

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poison is of sufficient force to create organic congestions and inflammations, then the type is determined and we have gastric, enteric, gastro-enteric fever, according to the seat of local lesion, together with a typhoid type of pyrexia.

Having discussed the introduction of a poison from without into the system and noted some of its effects, I propose as a still further matter of inquiry to notice the therapeutic action of quinine and the other salts of bark, and of bark itself, in such cases; and shall speak of sulphate of quinia, as a type of all the rest.

Since the discovery of this salt, now a little over half a century ago, various properties have been ascribed to it, the chief of which has always been that it is antiperiodic—in large doses, sedative and febrifuge or antipyretic. I believe it is only within a very short time that there has been claimed for it action as a germicide. I have a late journal in which some scribbler sets up that theory, and at the same time upsets all the cardinal landmarks which have guided some of us for all time back.

It must be a queer germ that operates only every other day, or every third day, working one day and throwing the whole system into violent revolution, with all the functions of every organ perverted, temperature above a hundred, pulse quick, tongue furred and general discomfort, and the next day lies off and rests—possibly sleeps, so as to get ready for another engagement.

Then it is to be supposed that quinine makes its attack on the enemy when resting, surprises the camp and captures the whole army. The microscope is yielding wonderful fruits in bringing into view the inhabitants of the world beneath us, as the telescope has revealed those worlds above us. A comparatively small number of scientists have the means of verifying many of its so-called revelations, and a still smaller number have the fitness for that kind of research. We therefore have to take a good deal on trust that may be as ideal as that of giving a new property, germicide, to an old drug, quinine, in order to have it mated to a theory.

When we come to consider the great liability of the white race, although the African race is everywhere in this country

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more exposed, to contract the disease under consideration, it may also be inferred that if the poison is absorbed in any case the color of the skin may offer some protection. This is thrown out as a hint as there are no statistics accessible on the subject of relative liability. But in the pure African I do not remember ever to have seen an ague cake. I think I remember one or two instances in over thirty years' observation of engorged spleen and liver in very bright mulattoes. For a long time they were believed to be exempt altogether from yellow fever; still they breathe the same atmosphere as the whites in localities filled with yellow fever germs.

Having proceeded so far in the consideration of what is known as malarial fever, it only remains to consider the best treatment. I can only give a syllabus.

During chill in intermittents but little is required, increased bed clothing and hot applications to the extremities. Sooner or later reaction is the law and fever the consequence. The practice varies with the various methods of various practitioners. Some give fever drops during the pyrexic state; others do not, but give alteratives during the pyrexia, so as to be able to introduce the preventive treatment when the fever is gone. My own cardinal idea is to act upon the secretive organs as soon as possible, and when there is either an intermission or remission to introduce quinine as rapidly as possible and abridge or break up the paroxysm.

The leading idea with me is to secure a free flow of bilious secretion which in most instances cleanses the tongue and shortens the paroxysm.

In typho-malarial or "this slow fever," it is necessary to vary the treatment to meet the symptoms. There is no intermission and but slight remission, so that in order to reduce the temperature and the pulse, arterial and heart sedatives are resorted to, such as tr. aconiti rad., in one to three drop doses, combined or not with tr. belladonnæ or digitalis during the pyrexia, at the same time addressing treatment to the organs of secretion. It is also necessary to look after the nutrition of a typho-malarial patient. The impression made by the morbid cause is insidious and slow in development. It is more in the nature of

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an irritation obscurely located, than an open congestion or inflammation. Hence the resources of life are taxed in a greater degree, and the dynamic resistance is proportionately weakened. There is so great a disturbance created in the centres that regulate organic actions proceeding from the origin of the pneumogastric nerve in the medulla oblongata that are wholly involuntary, and by direct communication involve the great sympathetic and vaso-motor system of nerves, that the ordinary resources of systemic repair are in a measure overcome. If we strive to reduce the temperature or lower the pulse we are treating symptoms, the exalted temperature is only an expression of diseased action, so the circulation is disordered because of organic or nervous derangement. And I would like to enquire whether in "this slow fever" it is good practice to give anti-pyretic doses of quinine (30 or more grains) and resort to the bath to lower a temperature which is not itself the disease but only an expression of morbid action reflected upon the nervous centres.

My plan is expectant and I resort to those agents that act slowly, as the disease is slow, and not abruptly—gentle alteratives, tonics and stimulants, with nutritious diet.

Prof. Koch was sent recently with a commission of other scientific gentlemen to make investigations in Italy and the East by microscopic research, as to the cause of Asiatic cholera, which is so prevalent there. He was greatly fêted upon his return to Berlin and was the recipient of public honors from the crown. He is reported to have discovered what he calls the "comma bacillus" as the cause.

I am not in this paper on fever considering the subject of cholera, nor the bacteria of phthisis; I am not considering the "bacteria," of yellow fever. But were it possible I would like to have Prof. Koch or Pasteur or Virchow, or any other scientist in Europe or America, tell us the name and habits of the germ which causes our malarial fever, a germ that operates upon alternate days without treatment, or upon every third day, and when the chills or remittents are broken up, has a tendency to return to work either upon the seventh, fourteenth, twenty-first or twenty-eighth day.

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If such a germ exists outside of the imagination of microscopical divers, it must possess some characteristics peculiar to itself. It must possess some of the qualities of the cat with nine lives.

I am not prepared to dispute the existence of a germ as the cause of either cholera or yellow fever. I am not disposed to doubt its existence where those diseases prevail. Nor am I disposed to doubt the theories of Mr. Lister in antiseptic surgery. But you had as well tell me that the motes that dance in the moon-beam cause the moon to shine, or that the fragrance of the rose or the whiteness of the lily depend upon a germ, as tell me that germs possessing all the qualities and powers necessary cause all the various phenomena of our climatic fevers.

THE AMERICAN SYSTEM OF PRACTICAL MEDICINE.—We have received an announcement that this work, which has been in course of preparation for three years, is now so far advanced that the first volume will be ready for delivery February 1, 1884. That this will be a credit to American Medicine cannot be doubted, in view of the eminent ability of the editor and of the several contributors, who are men known not only for their skill as practitioners, but as being foremost as teachers and writers. One evidence of the skill of the editor, Professor Wm. Pepper, is seen in the tact which he has displayed in distributing the work so that each contributor should deal with the subjects best adapted to him.

The work will consist of five imperial octavo volumes of about 1,000 pages each, and these will be issued at intervals of about four months. The prices will be $5.00, $6.00 or $7.00, according to the binding. Henry C. Lea's Son & Co. are the publishers.

DR. HARVEY L. BYRD, of Baltimore, died in that city, of pneumonia, Nov. 29, 1884, aged 64 years. He was well known as a writer, having contributed much to the various medical journals. He was for three years editor of the *Oglethorpe Medical and Surgical Journal* when residing in Georgia, and afterwards with Dr. Wilkerson established the the *Independent Practitioner*. He held professorships in several different medical schools at different times and was active in the organization of two or three.

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CASES FROM PRACTICE.

MULTIPLE CEREBRO-SPINAL SCLEROSIS.

BY M. J. EPSTEIN, M. D., ST. LOUIS, MO.

Mr. X., aged 41, comes from a very nervous family. Patient's father, who died at the age of 70, was an imbecile and suffered from tremor of the hands and jaw during the last years of his life. His mother died of cerebral hemorrhage. His mother's brother was a lunatic.

Patient never had any venereal disease. At the age of twenty he had an attack of typhoid fever. At the age of twenty-seven he was prostrated by sunstroke, so that he did not regain his normal health for two years. In the fall of 1876 he underwent excessive mental strain. This was followed by a prolonged illness, which the attending physician pronounced brain fever. Since then he has been physically strong, but mentally not so well.

His present illness commenced four months ago, when he became a prisoner at the jail.

The initial symptom was insomnia, which was followed by a feeling of pressure in the occipital region. The area of this region of pressure gradually extended forward until it involved the vertex of the head. From this region of pressure momentary, lancinating, electric-like pains radiate to the anterior and outer portions of the head.

In the early part of September his left hand began to tremble whenever he became excited. This tremor gradually increased in frequency, until it became constant, even occurring while patient is asleep. Several weeks ago his right hand also began to tremble whenever he became excited, and during the last two days it trembled continually, which aggravation is attributed to the great disturbance created by the prisoners several days ago.

About six weeks ago he first noticed that his left leg was weaker than the right. Subsequently when walking, the great toe of the left foot would scrape along the floor at each step.

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He had occasional attacks of vertigo. His memory, for which he was formerly noted, has recently been failing. Within the last month his eyesight has been weakening, particularly that of his left eye. One of the most annoying symptoms has been formication. He felt as if a worm was crawling beneath the skin in the back part of his neck. This sensation at times lasted so long that it almost made him wild. It was alleviated by a fly blister. He is very somnolent, sleeping three-fourths of the time. There is incontinence of urine by day and night. His bowels are normal. Has no erections, nor sexual desire. When lying down a while, he experiences a tingling sensation and numbness in his left thigh, which disappears after walking a short distance, or when he rubs the thigh with a coarse cloth.

Considering the age and circumstances of the patient, he is moderately well nourished. Both hands are in a condition of constant tremor. When he performs any voluntary movement with the left hand, the muscular incoordination, which is so characteristic of multiple cerebro-spinal sclerosis, is well marked, the line along which his hand passes being exceedingly irregular. When carrying a glass of water from the table to his mouth with his left hand, he invariably spills the water, and when the glass reaches his mouth, it rattles against his teeth. The muscular incoordination is still more pronounced when he attempts to touch the nape of his neck.

When standing, he is unable to raise his left foot clear off the floor; he can merely elevate his heel. He walks with the assistance of a cane, and drags the left leg along like a dead weight, the anterior half of his foot scraping the floor all the way.

There is a feeling of great fatigue in the left lumbar region and the left hip when he walks a short distance. There is anesthesia and analgesia of the left lower extremity, from the middle of the thigh downwards. He does not perceive the prick of a pin nor the application of boiling hot water. There is considerable atrophy of the muscles of the thigh and leg. Formerly, patient spoke very rapidly; now his articulation is slow and hesitating, and he pauses at each syllable. He is greatly depressed. The rapid advancement of the disease can be noted almost daily.

This case presents the typical features of multiple cerebro-spinal sclerosis, superadded to which, however, is one of the most prominent symptoms of paralysis agitans, and that is the gentle and constant tremor.

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CASE OF EMPYEMA.

BY JOHN SCHILLING, M. D., MONTROSE, MO.

H. Kl., boy, aged 18, was taken March 13, 1883, with pneumonia in the lower lobe of the left lung, which terminated in suppuration. (His mother died of consumption.) April 25, pleuritis (chronic) set in; probably some pus had found its way into the cavity. May 10, the pleural sac was filled with fluid (sero-purulent), the left lung was compressed. June 1, the patient commenced expectorating pus in enormous quantities sometimes amounting to ℥ vj in 24 hours, and accompanied by a distressing cough. July 5, his side was aspirated, and a quart of pure pus was drawn off. This relieved him for about a week, when coughing, etc., returned. July 17, a swelling appeared six inches below the left nipple, and to the left of it, which was insufficiently lanced. A few days later it began to suppurate and kept up so for four months; during all the time he continued to cough and expectorate considerably. In November that fistula closed, but he contracted a gastro-enteritis, which was relieved by treatment. December, cough and expectoration intensified, with stitching pains in the side. The fistula re-opened, and from lancing another appeared one inch below in the axillary line. Both fistulæ kept running, and the discharge had now a sickening smell; the boy came near the verge of the grave. February 2, 1884, he was taken to St. Louis, where a prominent surgeon took care of him.

February 7, a piece of the eighth rib was exsected in the axillary line, and about two quarts of decomposed pus were let out. The cavity was washed daily, and the boy made a rapid recovery. After six days the drainage tubes were taken away and the wound was allowed to heal. Having spent altogether three weeks and a half in the hospital, the boy, apparently well, was sent home. A few days later the wound had nearly closed; coughing, etc., commenced again, and March 14 a third fistula showed itself about the place of operation. All the former symptoms recurred; diarrhea and vomiting increased, and the patient got as bad as ever.

May 31, I took charge of the case. The boy was emaciated to a mere skeleton, weighed ninety pounds, had suffocating cough and enormous expectoration. Appetite bad, could take almost no

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food. Temperature 101½°, pulse 110. There was a fistula about the eight rib, discharging pus scantily. Dr. Shelton gave chloroform and Mr. Isaak Miller assisted. I thought of excising another piece of rib, but when operating I found ample room, caused by the previous resection between the seventh and eighth rib in the axillary line. A simple incision was made, therefore, two inches long. An intercostal vessel had to be ligated. The matter was let out, in intervals during which the patient went into violent fits of coughing. A small piece of lung escaped through the opening and was cut off by the movements of the ribs. It looked tuberculous, of a dark bluish gray color, spotted throughout with yellowish white miliary corpuscles. The pus was thick, fatty and inoffensive, amounting to nearly three quarts. Temperature was now reduced to 97°, pulse 70, weak. The next day a No. 12 rubber catheter was introduced, and the cavity was washed out with a two per cent. carbolic acid solution. Temperature 98°, soon became normal, remaining so with slight alteration; the pulse and appetite improved daily, the latter becoming even excessive. Besides, the diarrhea gradually subsided and soon the patient could be up and out doors. The weight increased three pounds a week now. The pleural cavity, however, did not close so rapidly this time. It was washed out daily. I had the tube in about two lines beyond the ribs. Fitted to it I had a funnel made, so that the patient could fill and wash the pleural sac.

June 4, it held about one pint of the solution. The lower lobe did not reoccupy the whole space; it had partly suppurated and partly was shrunk together. The heart had been pressed over to the right side and remained there, held by adhesions. Only the upper lobe of the left lung had resumed its function. As the cavity grew smaller, the diaphragm pushed upwards, drawing along with it the stomach and spleen.

June 25,	cavity	held	about	-	-	-		℥ viij
July 15,	"	"	"	-	-	-	-	℥ iv
Aug. 1,	"	"	"	-	-	-	-	℥ ij
" 20,	"	"	"	-	-	-	-	℥ j
" 30,	"	"	"	-	-	-	-	℥ vj

All this time a sero-purulent secretion was discharged, diminishing from ℥ j at first to ℥ ss, August 30. At this I quit washing the sac. Sept. 10, withdrew the tube, in consequence of which the opening between the ribs closed, and the secretion was retained.

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Sept. 16, it broke open, letting out nearly ℥ j of dirty matter. Nov. 1, the rubber tube was left out entirely; since then little secretion from the fistula, and cavity almost contracted. Nov. 12, discharge ceased and fistula closed. The left side has not contracted at all, but rather bulges somewhat. The apex of the heart is a little to the left of the sternum; stomach and spleen reach up to the sixth rib in the axillary line. The boy has become stout and fleshy, weighed yesterday 144 pounds. He is now at school, trying to make up for what he had to neglect during his long illness.

PYEMIA AND DEATH, RESULTING FROM MASTOID DISEASE OF RIGHT SIDE.

BY GEO. W. SMITH, M. D. FORT SMITH, ARK.

[*Read before Fort Smith Medical Society March* 8, 1884.]

M. H., aged 44, a French Jew, consulted me September 1882, for deafness and purulent discharge of his right ear; on examination with reflected light, the drum head was found perforated, and a very offensive and profuse discharge of pus. As the patient lived quite a distance from me, and had to return home, I gave him the following prescription:

℞ Zinci sulphat.,
Acidi carbolici, - - - - - - aa gr. iij.
Aquæ destil, - - - - - - - ℥ j.

Sig. Warm and pour into the ear three times a day.

I heard no more from him until April, 1883. On that day, the examination revealed polypi springing from the drum cavity and inner wall of the external auditory canal. The granulations were removed with forceps made for the purpose. The discharge was very profuse and offensive. The drum head had suppurated away and ossicles had gone; he complained of constant pain in right moiety of the head, also in the occipital region and occasionally behind the right ear.

He was suffering from malarial toxemia, impaired digestion and assimilation, and frequent vomiting. On examination of the

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mastoid region, there was no swelling, redness or constant pain. He had naso-pharyngeal catarrh to a slight degree. My treatment for his ear was a prescription made use of while I was clinical assistant at New York Ophthalmic and Aural Institute.

℞ Sat. solution boracic acid.
Alcohol. - - - - - - - aa ℥ ss.
Sig. Use in the ear three times per day

I used a gargle of potassa alum for his throat. His general condition was cared for by Dr. ———, of this city. Treatment, tonics etc. After a few week's treatment and no improvement, pain in the head increased to the extent that he required morphia in considerable quantities. I advised an operation on mastoid, to which his physician was not agreed; at this juncture Dr. E. R. Duval of this city was called in consultation and gave emphatic expression as to the necessity and urgency of surgical proceedings, to which his regular attendant consented. June 21, 1883, I made a long vertical incision over mastoid down to the bone, which was found rough and uneven; the patient experienced some shock and requested that we defer further proceedings until next day. On the morning of June 22, with chisel and mallet, I entered the mastoid, and communication with mastoid antrum was effected, and a quantity of pus escaped through the opening. The effect of the operation was most satisfactory, as the pain was banished, as if by magic, and the patient improved. My connection with the case ceased, except an occasional visit, after some months. He had frequent malarial manifestations, and was treated with antiperiodics and tonics. In January I was summoned to see him, as he had some trouble with his left ear, which heretofore was normal. On examination, the drum head was very dark and retracted, with almost total deafness. He could not sit up as was his habit; his head would waver from side to side, and labyrinth disease was diagnosed. From that time he had chills and low fever; the malarial element having been eliminated, his lungs became involved and he expectorated pus. Marked debility, rapidity and feebleness of pulse, perfect deafness, and great emaciation, from which he died March 1, 1884. If his regular attendant had kept the artificial sinus open and observed cleanliness, his life probably would have been prolonged.

Was I justified in operating, as there were no external signs of

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mastoid disease? Knapp taught that many cases require operation where no tumefaction, or redness, or pain is located in the mastoid region. The relief he received from the operation certainly justified the surgical interference which should have been done earlier.

HIP-JOINT DISLOCATION—SUCCESSFUL REDUCTION AFTER TWELVE WEEKS.

BY DRS. J. H. AND L. T. HALL, POTOSI, MO.

[*Read before the S. E. Mo. Medical Association Nov.* 11, '84.]

Little Sadie P., aged nine years, was brought to our office early in October with the following history:

On July 17 preceding, while playing with other children in the orchard near the house, she had fallen from an apple tree. After some hours' delay a physician was secured who readily diagnosed the case as one of dislocation of the hip-joint, and proceeded, under chloroform, to reduce the dislocation. According to statements of those present the operation was successfully performed without serious difficulty. Accepting this information as correct, the luxation must have recurred spontaneously almost at once, as from the positive statements of parents and others the present deformity has existed from that time. The dislocation was the usual one, upon the dorsum of the ilium, producing the marked deformity of that injury. More than eleven weeks had already elapsed since the accident, but the parents being quite anxious that something should be done, an early day was appointed on which to visit the house, twenty miles distant, and undertake the operation. Accordingly, on Wednesday October 8, 1884, with many misgivings as to the result, we repaired to the house, and early the following morning proceeded with the operation.

Without entering into details, the patient was thoroughly etherized and by patient and persistent effort the head of the femur was finally safely landed in the acetabulum. Save the use of pulleys and other mechanical appliances, the usual methods of the operation, extension, flexion, rotation, etc., were in turn resorted to.

The after treatment consisted in the use of extension, applied as

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in morbus coxarius, the patient being confined to the bed for three weeks.

On last Monday, more than four weeks after the operation, the little girl was found going about the house, using crutches as a precaution, but having quite free use of the limb, admitting of flexion to a right angle and taking the weight of the body readily, only a slight halt being observed in the gait.

The books, so far as I have examined, give seventy-six days as the limit in practice of successful reduction of this dislocation. This operation was eighty-four days after the injury and suggests the advisability of an attempt at the operation at almost any time, at least within that limit.

DRESSING FOR ULCERS OF THE LEG.—B. F. Curtis, M. D., states that in the out-patient department of the Chamber's Street Hospital, they have had good results from the treatment of ulcers of the leg with Lister's boric-acid dressing, applied with a crinoline bandage.

The leg and foot are thoroughly washed with a one-to-forty carbolic acid or one-to-one-thousand corrosive sublimate solution, and the ulcer itself is washed with a saturated solution of boric acid. Over the ulcer is put a piece of thin gutta-percha tissue, which has been soaking in the boric acid solution, large enough to extend about one-fourth of an inch beyond its edges on all sides. The leg is wiped dry. Sufficient borated or salicylated cotton to take up the discharge is laid over the ulcer, and the rest of the leg from ankle to knee is wrapped with a half inch layer of cotton batting. An ordinary bandage is applied to the foot and and from the ankle to the knee is applied a crinoline bandage which has been squeezed quite dry after soaking for five minutes in water. Care must be taken to have the cotton project beyond the upper and lower edges, as they may chafe the skin when dry and stiff. The crinoline will dry in a half hour; but if time is important an ordinary bandage may be applied over the crinoline and the patient be dismissed at once.—*N. Y. Med. Jour.*, Nov. 8, 1884.

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EDITORIAL.

OIL OF GAULTHERIA IN RHEUMATISM.

Dr. H. H. Seelye reports the result of experiments made in Bellevue Hospital in the use of oil of gaultheria in treating cases of rheumatism.

The most agreeable method of administering it was in capsules either alone or mixed with salicylate of sodium or in soda-water as a flavoring; but the method which was generally adopted in the hospital is an emulsion of ten minims of the oil to half a dram each of glycerine and water.

If the patient had been sick for some time and there was extensive inflammation of the joints, two drams of this mixture were administered every two hours during the day and every three hours during the night.

In almost all cases relief to the severe pain would be secured by this treatment within twelve hours, and within twenty-four hours all the joints would be free from pain and swelling except some one, perhaps, which would still retain a little; and there would be a slight stiffness of the previously inflamed parts.

By the time the acute rheumatic symptoms had disappeared constitutional symptoms due to the effect of the drug generally manifested themselves. These symptoms somewhat resemble those of cinchonism, ringing in the ears, deafness, headache, sensation of fullness in the head. If the dose of the medicine was not now reduced sufficiently other symptoms followed, loathing of the drug, nausea and vomiting, tremulousness of the muscles, flushing of the face, profuse perspiration, delirium strikingly like that of delirium tremens. Ordinarily only a slight ringing of the ears was exper

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ienced, which would disappear upon reducing the dose to one dram of the mixture every three or four hours.

The most favorable effect of this drug was found in the severest and most acute cases, in which its influence was wonderful. In chronic cases its value seemed to be chiefly in affording prompt relief to the acute pains and swellings attending exacerbations of the disease.

The frequency of cardiac complications was increased by the use of this agent, and in many cases cardiac murmurs which were present at the commencement disappeared uuder treatment.

DISEASE OF THE PANCREAS.

Little is found in leading text books on the Theory and Practice of Medicine in regard to diseases of the pancreas. Dr. C. Warrington Earle reports that in three years he has met four cases of chronic inflammation of this organ. The symptoms in all these cases were vague, the most notable one being a peculiar whiteness of the tissues. While the symptoms all indicate a very grave perversion of nutrition, they are not generally so distinct as to render possible a differential diagnosis between disease of the pancreas and other forms of malnutrition.

There is great emaciation which cannot be explained by any recognizable disease present. In some cases there is a flow from the mouth of fluid resembling saliva; and sometimes there is fat in the stools when no excessive amount of fatty matter is taken in the food.

So far as treatment is concerned, Dr. Earle thinks that the effect of pancreatine has not been fully tested as yet, but that it promises better than any other remedy that we have.

The same number of the *N. Y. Medical Record* which contains Dr. Earle's paper also gives the report by Dr. F. W. Epley, of New Richmond, Wis., of a case of cancer of the pancreas. A

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diagnosis of malignant disease in the liver or adjacent structures was made on account of the icterus present, the clay-colored stools and a tumor that was detected about two inches to the right of the umbilicus. It was found on *post mortem* that schirrhous cancer had involved the head of the pancreas and had affected the common duct of the liver so as to make it impossible to separate or distinguish that from the substance of the pancreas.

MOUTH BREATHING.

In a recent number (November 22, 1884), of the *New York Medical Record*, there is a paper by Dr. Geo. W. Major, which he read before the Canada Medical Association, Montreal, August 26, 1884, in which he calls attention to the causes, consequences, prevention and cure of the habit of breathing through the mouth.

In some cases,he observes, this is not simply a habit but a necessity caused by some permanent mechanical obstruction to free respiration in the natural manner through the nostrils; in other cases the habit is formed in early life as the result of some temporary obstruction by swelling of the nasal mucous membrane or otherwise.

Dr. Major remarks that while the function of the nose to which the thought of most of us would turn as especially belonging to it is smelling, that of respiration is far more important as it purifies, moistens and modifies the temperature of the air before it reaches the larynx and the lungs.

He asserts that the habit of breathing through the mouth is productive of actual physical deformities, viz., deformed chest with prominent sternum,sunken sides,retraction of the line of attachment of diaphragm and rounded shoulders,shortening of the upper lip and undue prominence of the upper incisors and irregular development of the symphysis of the upper jaw; flattening and thinning of the *alæ nasi* and wasting of the muscles of the nose and its neighborhood. He claims that these

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latter characteristics are more pronounced on the side where there is the greater obstruction. He also asserts that in aggravated cases there is an expression of stupidity with loss of memory. He admits that the latter may be the result of internasal pressure rather than of mouth breathing directly. We certainly think it questionable whether there is any causal relation between the mouth breathing and the other deformities mentioned unless it be those of the mouth. The deformities of the chest and nose are evidently rather due to the obstruction of respiration which itself causes the mouth breathing.

He refers to this habit also the occurrence of foul breath and decayed teeth, and thinks that involuntary micturition during the night is also caused by it.

The principle causes of mouth breathing are deviations of the nasal septum, outgrowths from the bones or cartilages of the nose, or of its mucous membranes, or from that of the pharynx or tonsils.

As this habit is usually contracted in early childhood, it is important that parents and nurses should be instructed as to the effect of it so that the attention of the physician may be called at once and if it be due to any permanent obstruction of respiration may institute proper measures for its removal.

He regards deviation of the nasal septum as probably the most frequent cause of obstructed breathing. He insists upon the necessity of surgical interference, giving preference to the method of Dr. Ingalls, of Chicago, in which the mucous membrane of the deviated side and cartilage are carefully divided in a triangular shape with the apex upward, the cartilage dissected from the mucous membrane of the opposite side and removed, the septum being brought into line with pliers and the divided mucous membrane held by sutures and a pad of soft antiseptic material. The resiliency of the cartilage is such as to necessitate the removal of a portion equal to the redundancy in order to acquire a straight line.

Of the various punches used he recommends only that of Sajons,

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of Philadelphia, in which a movable blade can be fixed at any angle and the septum be divided through and straightened by allowing overlapping, and be held in place by plugs until healed. Our own preference would be for the stellate punch devised by Dr. A. J. Steele, of St. Louis.

For the various other forms of obstruction by hypertrophy of mucous membrane or tumors of one kind or other he advises removal by the galvano-cautery. Where bony growths have formed he finds the surgical engine and burr the most satisfactory means of removal.

The tonsillotome is the best instrument for the removal of the tonsils.

THERAPEUTIC ADVANCEMENT.

In a paper read November 18, 1884, by Dr. E. R. Squibb, before the first meeting of the New York State Medical Association the author discusses the evidence of advancement by physicians of the present day in the use of remedies, as it has come under his observation in his peculiar relations to the profession in supplying to them the established articles of the pharmacopeia.

He remarks that the thoughtful physician seems more and more to realize that his success as an individual, as well as that of the profession, depends upon his real utility to the public. He thinks that physicians and the public as well are coming to understand more correctly than formerly the true value of the word cure.

They recognize the fact that the work of the physician is in caring for the patient and guiding him to a recovery rather than in "curing" him of disease. So the real utility and scope of remedial agents is becoming better understood and to that degree real therapeutic progress is made.

The profession are learning too, to recognize the fact that we are not to be trammelled in the administration of remedies by the arbitrary doses laid down in the text-books. They now more than

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formerly give remedies to secure definite effects, and better appreciate the varying susceptibilities of different patients to the action of particular agents and the varying susceptibility of the same patient at different times.

He notices advancement further in the greater care taken by physicians to secure pure medicines and the closer study of the pharmacopeia and the more common use of the pharmacopeial tests of drugs.

Furthermore the increasing tendency to simplicity of prescriptions and the abandonment of complicated formulæ is to be regarded as an evidence of therapeutic progress. The same may be said of the increasing use of the more concentrated and reliable fluid extracts instead of the decoctions, infusions, vinegars and wines.

While he thinks that great advancement has been made in the acquisition of definite agents and in the knowledge how to use them, he believes that some changes have taken place in the medicines used and the mode of using them during late years which are advantageous rather to the purses of manufacturing druggists than to the medical profession or the public.

STATE BOARD OF HEALTH.

It is not to be wondered at that the Missouri State Board of Health has not been able as yet to accomplish as much as that of our sister state across the river. Besides having been enacted more recently, our law is less clearly defined in its provisions, and the action of the board has been restrained and hampered in a number of ways. The members of the profession through the state who claim to be law abiding citizens and to desire advancement of the profession have not given to the board of health the hearty support and assistance in carrying out and enforcing the law that the board certainly had a right to expect of them.

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Admitting the fact that the law is defective, as it truly is, and that it may be interpreted to mean that physicians who have practised for five years in the state are wholly exempt from the action of the law and need pay no attention to it, it remains true that the published interpretation of the board of health was that all physicians were by the law required to register in the office of the state board, but that those who had been engaged in practice here for five years were relieved of the requirement to submit their diplomas for inspection.

We regret to say that a considerable number of very prominent practitioners of St. Louis have thus neglected or refused to give their support to the state board of health. We were astonished a few days ago to learn that a gentleman of very considerable prominence in the profession and who we are informed is an aspirant for appointment as a member of the next board has himself neglected to comply with this provision of the law.

We are glad to know that the supreme court of the state has recently rendered a decision which very fully sustains the authority of the state board of health and establishes the principle that the board of health has the authority to determine the standing of the different medical schools of this and other states, and also to decide upon the professional character of individual practitioners. This matter is of such importance that we give on following pages the full text of Judge Sherwood's opinion so far as it relates to these points. There is every reason to hope that the law will be amended by the legislature in such a manner as to remove its present ambiguity.

SUPREME COURT OF MISSOURI; DECISION RELATING TO STATE BOARD OF HEALTH.

One E. G. Granville, a graduate of the Kansas City Hospital College of Medicine, presented his diploma for registration to the State Board of Health of Missouri, in accordance with the law regulating the practice of medicine. The state board of health refused to grant him the certificate authorizing him to practice in this

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state, on the ground that the Kansas City Hospital Medical College was not a college in "good standing," and therefore its diplomas could not be recognized.

Dr. Granville accordingly filed a petition in the supreme court of the state, praying that court to issue a writ of mandamus, enjoining upon the board of health the issuance of such certificate. The decision of the court was given by Judge T. A. Sherwood, and fully sustained the action of the board of health, and defined their authority.

Subjoined is the text of the decision on the points involved: The first point we omit, as it simply discussed the question whether or not a medical college was authorized to confer the degree of M. D.

"The second point made by the demurrants will now be discussed in connection with the statute on which it is bottomed. What is the purpose of that statute, its central and dominant idea? By what instrumentalities and what methods was that purpose to be effectuated, and that idea clothed with the garments of practical performance? An answer to these questions solves the sufficiency of the petition on the point now being considered. An attentive reading of the statutory provisions already quoted, together with others in *pari materia*, cannot fail to discover that the legislature, so far as legislation could be made effectual, was determined to provide for the sanitary welfare of the people of this state, and to rid this common-wealth of that class of medical pretenders known by the various designations of empirics, mountebanks, charlatans and quacks. To this end, but three days prior to the approval of the act in question, one had been approved creating a 'state board of health,' on which was conferred a 'general supervision over the health and the sanitary interests of the citizens of this state,' and made it their duty to recommend to the general assembly sanitary laws, and to cities and county courts the adoption of any rules they may deem wise or expedient for the protection and preservation of the health of the citizens thereof, and they were also empowered to administer oaths and 'to take testimony in all matters relating to their duties and powers.' [Acts 1883, pp. 95-97, sections 3 and 16].

"To this end, also, it was enacted that when any one desired to practise the medical profession in this state, he should do one of two things; either to present himself before the state board of health and 'submit to such examination as the said board shall require,' or, if a graduate of medicine, to present his diploma to the state board of health 'for verification as to its genuineness,' and if the diploma is found to be genuine and the person named therein to be the person claiming and presenting the same, the state board of health shall issue its certificate to that effect,' etc. Sec. 1.

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"An ingenious argument has been made in behalf of relator, endeavoring to show that his right to a certificate is exclusively bottomed on section one, just quoted; that this right became consummate when the diploma was verified as to the genuineness and the person named in it found to be the person claiming and presenting the same, and that this court in ascertaining whether relator is entitled to the exercise of our mandatory authority in his behalf, must centre and confine our attention to that section alone.

"Should we do this,our action would certainly be at variance with that very familiar rule of ascertaining the legislative intent, which requires that, save in exceptional instances, instances where the legislative object is accomplished, embraced and ended in and by a single section, that the whole statute, and sometimes others *in pari materia*, must be looked to in the effort to discover the entire legislative meaning.

"This case is not an exceptional one, the legislative thought and purpose are not fully expressed, and the legislative methods whereby that purpose is to be executed are not fully described in section 1. This will become apparent as we proceed further in this discussion. Thus, while section 1 provides for the issuance of certificates to graduates and to examinees, it remains for section 2 to declare that the board shall "prepare two forms of certificates, one for persons in possession of diplomas, the other for candidates examined by the board." As the legislature has only made provision in that section for *two* forms of certificates, neither of which embraces the case of a graduate who has been so unfortunate as to *lose* his diploma it must needs follow that the legislature has made no provision for a case of that character. This being true, it will also follow that those words in that section requiring the board "to issue certificates to all who shall furnish satisfactory proof of having received diplomas from legally chartered medical institutions in good standing," are to be applied and can only be applied to that class of persons for whom the board is to prepare one of those forms of certificates, and none others, *i. e.*, to that class of 'persons in possession of diplomas.'

"As a necessary sequence of the foregoing it must devolve on him who is possessed of a diploma to furnish to the board 'satisfactory proof of having received' such diploma 'from a legally chartered medical institution in *good standing*,' and this, too, in addition to the requisites as to verification, particularly specified in section 3. And if, leaving the plain language and letter in section 2, we should look to the reasons which gave to the statutory provisions their birth and their being; look to the mischief they were designed to extirpate and the remedy and protection they were designed to furnish, it would seem passing strange that any other conclusion than that announced should be reached. For why should the legislature create a board of health with such comprehensive powers, and in one

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case, where profert is simply made of the diploma and the affidavit, require that the board should look no further, but straightway go through the perfunctory performance of issuing a certificate to the applicant, and yet when the diploma is merely lost, proof satisfactory must be made that the absent diploma is issued by 'a legally chartered medical institution in good standing?' Is it not obvious, under the claim made by the relator, that the possessor of the diploma, *ipso facto*, becomes the possessor of a certificate? If so, wherein consists the protection which the board of health affords in that class of cases? Does not such a construction for the most part nullify the statute and abolish the board of health? If satisfactory proof that a diploma has emanated from a medical institution 'in good standing' is requisite in the one case, why not in the other? Surely no satisfactory answer, no answer based upon the reason and spirit of the law can be returned to these questions save one which coincides with the views already announced.

"For these reasons the second ground of demurrer must be held valid and the petition fatally defective in lacking the allegations which the demurrer points out.

"There is another matter which, though not raised by the demurrer, is obviously presented by the petition when considered in connection with the section just discussed and the nature of the relief sought. And we examine this matter the more readily because requested by both parties to this controversy, that the 'whole law of the case be settled in the outset.'

"The point we refer to is this: If the proper view has been taken by the meaning of section two, aforesaid, then the board of health, in the discharge of duties in reference to the issuance of certificates, is engaged in the performance of those things which essentially partake of a judicial nature, requiring the examination of evidence and passing on its probate force and effect, requiring the exercise of judgment and the employment of discretion. Now, while courts on suitable occasions will apply the spur of mandamus to put the discretion of inferior courts and officers in motion, yet after that discretion has been exercised, as in the case at bar, no matter in what way, the mandatory authority to compel the doing of the particular act prayed for is at an end. Of course these remarks have no relevancy to acts simply ministerial, where no judgment is to be exercised; but this case is not regarded of that character, and whenever an element, shred or degree of discretion enters into the duty to be performed, the functions of mandatory authority are shorn of their customary potency and become powerless to dictate terms to that discretion. Were the rule otherwise, instead of officers discharging their duties in accordance with their own official discretion, that of a court would be substituted therefor, and in instances like the present, should this court, proceeding contrary to all precedent, arrogate to itself such revisory powers, while palpably usurping functions conferred exclusively by the law

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upon others, in the endeavor to ascertain whether a given college is a 'medical institution in good standing,' it might find itself seriously embarrassed by the character of the investigation it would be compelled to make; might find itself wandering amid the mazes of therapeutics or else boggling at the mysteries of the pharmacopeia.

"To state such an outcome is necessarily to condemn the process of reasoning by which it is reached.

"Abundant authority, it need scarcely be said, sustains the position that discretionary powers are not revisable, and that this rule applies with especial force to cases where mandatory aid is sought.

"In a recent case in Minnesota decided in July last and reported in the November number of the *American Law Register*, the same view is taken of the point, and mandamus refused, where the board of health of that state acting under a statute similar to our own had refused to grant a certificate to one who had been guilty of 'unprofessional or dishonorable conduct.'

Powell vs. State, Med. Exam. Board, S. C., N. W. Ref. (July), 238, and in that case it is also decided, and a number of authorities are cited in support of the ruling that the creation of such a board with powers such as have been described, is within the power of the legislature and does not not transcend constitutional limits. It is thought best to say this in conclusion, that notwithstanding what has been said relative to the discretionary powers of the board of health, that according to the express terms of the proviso in section 2, supra, such discretionary power does not extend to discriminating against any particular school or system of medicine, and that, should such discrimination ever occur, the limits of discretionary power will have been passed. Relator, if he desires, has leave to plead further. All concur, except Hough, C. J., who concurs in all the paragraphs of this opinion, except the last one, which he does not regard as pertinent to the present state of the pleadings."

THE ST. LOUIS TRAINING SCHOOL FOR NURSES

This institution has just completed its first year. The very satisfactory annual report, prepared by its president, Mrs. W. H. Pulsifer, will shortly be issued in pamphlet form. The co-operation of various agencies and many persons was required to accomplish the success that has been attained, and, while it is not our duty to endeavor to allot the degrees of credit severally due to those who shared in the enterprise, we will take this occasion to congratulate

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the energetic and persevering president upon her efficient guiding of the interests entrusted to her.

This is not the place to discuss the humanitarian side of so important a movement, opening, as it does, a door to woman for lucrative employment in work which is essentially her own, and has been from the beginning of civilization.

At the present day the physician is expected and is called upon to contribute, without money and without price, information and time to forming plans for public hygiene and the prevention of disease. But he can legitimately advocate and assist this Training School, which promises to be conducive to his professional advantage, through his pocket. Often more important than medication to the successful treatment of a case is good nursing.

How fortunate is the physician who knows, when he leaves a sick room, that a nurse is in charge, whose tried character and intelligence make it certain that she will not endeavor to fortify her endurance by the use of alcoholic stimulants, and that she is able to observe and report the details of the case at the next visit, and that she will faithfully and efficiently carry out and enforce the directions which he may have given as to the management of the case. Competent nurses of this kind are sure of employment, and enhance the reputation of those physicians who have patients under their charge.

A year hence the school will send out its first class of graduates. The course includes two years of actual service at the city hospital, constant training under the head nurse, brought on from the New York Bellevue Hospital School, and lectures from a corps of physicians, teachers in medical colleges and others.

Those who desire to have such nurses when there is sickness in their families, will do well to contribute to this school, so that its capacity may be augmented.

Sixty applications for admission as pupils have been received, but the little home at 1510 Lafayette avenue will at present accommodate but ten.

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DANGERS FROM PLASTER OF PARIS JACKETS.

Dr. Samuel W. Smith reports in the *N. Y. Medical Record*, October 18, 1884, two cases in which severe bronchitis was, in his opinion, induced by the chilling produced upon the thorax of children by the application of a plaster of Paris jacket. One of these cases, a little girl, æt. seven, terminated fatally, having involved the pulmonary capillaries. The other patient recovered. Dr. Smith states that a number of other children to whom he had applied plaster of Paris jackets gave him trouble in the same way, and that in consequence he has abandoned the use of the plaster of Paris and now makes a corset of light tinned wire interwoven over an untempered steel frame which is shaped upon a plaster cast of the deformed patient.

So far as the special danger to which he refers is concerned, we fail to see how the patient is saved from it by this method, inasmuch as the taking of a plaster cast is necessary in order to fit the wire upon it. Still these splints will in many cases serve an excellent purpose and have the decided merit that they can be removed at night and reapplied in the morning.

He says that Prof. F. H. Hamilton's wire gauze hip splint suggested to him the use of the same material for a corset. It is easily arranged for the application of a jury mast when necessary by means of screw loops on the steel rods which support the back. The legs of the jury mast having slits in them are readily made fast by screws.

For the cut we are indebted to the courtesy of Dr. Smith and Messrs. F. G. Otto & Co., of New York.—ED.

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BOOK REVIEWS AND NOTICES.

CLINICAL LECTURES ON MENTAL DISEASE. By T. S. CLOUSTON, M. D. Edin., etc, To which is added an Abstract of the Statutes of the United States and of the several states and territories relating to the Custody of the Insane. By CHARLES F. FOLSOM, M. D., etc. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 550; cloth. (St. Louis Stationery and Book Co.; J. H. Chambers & Co.)

Dr. Clouston is a well known psychologist of Scotland, having been for some time superintendent of the royal Edinburgh asylum for the insane, and formerly one of the editors of the "Journal of Mental Science." His opportunities for observation have been extensive and his studies careful and thorough,and in this volume he has given us the mature results of his experience. His style is clear and lucid, and he deals with the practical rather than with the abstract and abstruse phases of the subjects discussed. The descriptions are clear and intelligible, and the cases cited are really illustrative, not presented merely for their rarity or to make an impression. This book is evidence complete that Dr. Clouston is not only an able practitioner but an admirable writer. He not only knows, but can tell well what he knows.

A TREATISE ON FRACTURES. By LEWIS A. STIMSON, B. A., M. D., Professor of Surgical Pathology in the Medical Faculty of the University of the City of New York,etc. With 360 illustrations on wood. *Philadelphia: Henry C. Lea's Son & Co.* 1883. 8vo.; pp. XVI, 598; sheep. (St. Louis: J. H. Chambers & Co.)

No apology is made by the author for the issue of another work on this subject, not even a preface is given the reader; one commences at once on the subject proper, and the book stands on its own merit.

The preliminary remarks, that is the consideration of fractures in general, as of the varieties, displacements, etiology, symptoms, diagnosis, repair, consequences, treatment, false joints, delayed, deformed, faulty or vicious union, and prognosis occupy more space than is usually given to this part of the subject, but not too much; for if the surgeon is well grounded in these, the accident of locality

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is easily mastered. The latest and most approved ideas on the pathology and mode of repair and on the material and manner of preparation of the appliances for treatment are fully given.

The special fractures are considered in all their details, and the excellent order or plan in which they are treated simplifies their study and ease of reference.

We would judge that the author's personal experience was not large, but he has drawn freely from all sources, especially the Continental, and with rare good judgment has given us the best.

In the general plan and make-up of the book one is reminded of the classic work of Hamilton on the same subject, and the query suggests itself: Was a new treatise demanded? Perhaps not, and yet a new mind with different training and experience might emphasize facts not sufficiently dwelt upon by others. Hamilton draws largely from his own experience, reports many of his own cases and strongly advises his special plan of treatment, more so than does Dr. Stimson. Still the present work is fresh and contains much not elsewhere found within the covers of a single book. All surgeons would do well to have it. A. J. S.

THE SCIENCE AND ART OF SURGERY. A Treatise on Surgical Injuries; Diseases and Operations. By JOHN ERIC ERICHSEN, F. R. S., LL. D., etc. Eighth edition revised and edited by MARCUS BECK, M. S. and M. B., Lond., etc. With nine hundred and eighty-four engravings on wood. Vol. I. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 1124. Cloth or sheep. (St. Louis: J. H. Chambers & Co.)

"Erichsen's Surgery" has been too long and too favorably known among American practitioners to necessitate any exhaustive review of this eighth edition. Simply to announce it would secure a demand for it, but we must call attention to the thorough revision which this has undergone, the distinguished author having associated with himself in this work Mr. Marcus Beck, a former pupil, whose practical acquaintance with surgical pathology well fitted him to revise the parts of the volume relating to that department.

So rapid has been the development of surgery during recent years that to bring the work abreast of the times has necessitated the rewriting of some entire chapters and the modification in important particulars of some others.

Mr. Erichsen is an ardent supporter of the antiseptic method. "However much," he says, "the details of the antiseptic method may

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be varied in the course of time and by the introduction of new chemical agents, the grand principle which sublies it, and on which the whole superstructure of its details is built, will remain intact and unchangeable.

Messrs. Henry C. Lea's Son & Co. have given us the book in admirable style, as they do all their work.

A COMPEND OF ORGANIC AND MEDICAL CHEMISTRY, etc. BY HENRY LEFFMANN, M. D., D. D. S., Professor of Chemistry and Metallurgy in the Pennsylvania College of Dental Surgery. *P. Blakiston, Son & Co.* 12mo.; cloth; 124 pp. (St. Louis: J. H. Chambers & Co.)

This forms No. 10 of the "Quiz Compends" issued by this enterprising firm, and is not behind its predecessors in such arrangement of the material as to render it valuable to students preparing for examination. The tabular arrangement is appropriate, and by saving of space allows the introduction of much interesting matter. The ptomaines have not been overlooked, and the analysis of urine and drinking water have been accorded a consideration commensurate with their importance, so that the value of the work will not cease with the time of preparation for the degree, but will endure as an *aide-memoire* to the practitioner.

PRACTICAL PATHOLOGY. A Manual for Students and Practitioners. By G. SIMS WOODHEAD, M. D., F. R. C. P. E., etc. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 484; cloth. (St. Louis: J. H. Chambers & Co.)

This book gives a detailed description of the various organs of the body as they appear, when they have been affected by disease, both to the unaided eye and under the microscope.

The first chapter consists of twenty pages and is devoted to Post-mortem Examination, Instruments Used, Method of Examination, etc. The second chapter of 54 pages is devoted to the methods used in pathological histology.

A separate chapter is devoted to each of the following subjects: Pathology of the the Liver; of the Heart; of the Blood Vessels; of the Kidneys; of the Lung; of the Spleen; of the Alimentary Canal; of Bone and Joints; and of the Nervous System.

A chapter of 64 pages is devoted to Tumors. and the last two chapters to Parasites, and Vegetable Parasites.

The contents of the 484 pages which constitute the volume, is eminently practical, giving minute directions for removing the various organs from the body, and how to preserve and prepare

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them for the microscope, pains being taken, when directions are given to use a certain fluid or preparation, to refer the reader back to the description of that fluid or preparation.

There are 136 illustrations, colored so as to represent as nearly as possible the appearance of the specimens from which the original drawings were made.

The book is quite interesting, though it is rather a book for guidance and ready reference in making post-mortem and microscopic examinations, than one to be read through in one's office.

M. H. P.

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH. Part VI. July, 1884. 8vo.; pp. 109 to 216, 2s. 6d.

There are some papers of very considerable interest, especially the first, giving a theory of apparitions, and the report of the Committee on Haunted Houses. It is impossible for us to give any extended summary of these papers, as our space is overcrowded; but we are sure that our readers would greatly enjoy following up these reports, as they are published each quarter. The Society for Psychical Research should have a large membership in the United States.

THE PHYSICIAN'S POCKET DAY-BOOK, Designed by C. HENRI LEONARD, M. A., M. D., etc. *Detroit, Mich: Illustrated Medical Journal Co.*

This is a very condensed visiting list, containing pages ruled for the daily accounts with twenty-five or fifty patients weekly, also pages for obstetric memoranda and miscellaneous accounts. There is no reading matter in the book, all the space being devoted to the keeping of records. The binding is neat and substantial.

MANUAL OF CHEMISTRY; A Guide to Lectures and Laboratory Work, etc. By W. SIMON, Ph. D., M. D., Professor of Chemistry, Baltimore, Md. With Sixteen Illustrations on Wood and Seven Colored Plates. *Philadelphia: Henry C. Lea's Son & Co.* 1884, 8vo.; pp. 411; cloth. (St. Louis. J. H. Chambers & Co.)

In these days of many books it is seldom we are gratified with the perusal of one which merits approval in every respect like Prof. Simon's Manual. To the student wishing to review his chemistry during the vacation, it brings back vividly the remembrance of the experiments he has seen, the laboratory-reactions he has made, the lectures he has heard. Whatever the press of labor in following the many lectures during the course has not

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allowed him to consider leisurely, he may by the aid of the manual recall and impress on his mind. With a very complete survey of the whole field there is coupled a lucid conciseness so as to compress much valuable information into a moderate space. The wood cuts are well selected and the color plates excellent. This beautiful and valuable method of using slips of specially prepared paper to represent the color-reaction was used with much success by Runge in 1845 in his "Grundriss der Chemie" and "Farbenchemie," but has been much improved in the present work, where not only single shades of color are given, but the successive changes occurring during the progress of a reaction. This has a most especial value in showing the succession of tints of the alkaloids. The publishers announce the work for sale with or without the color plates, but he who purchases the work without them practises a false economy. The typography is good, and careful proof-reading has reduced errata to a minimum. The graphic formulæ of aromatic compounds on page 296 show that the author has not ignored the most modern researches, showing the position of HO in the pyrogallol nucleus to be successive, instead of asymmetric as heretofore taught; and throughout the work a thorough familiarity with his subject is manifested by the author by his perspicuous arrangement.

CURTMAN.

AN INTRODUCTION TO PATHOLOGICAL MORBID ANATOMY. By T. HENRY GREEN, M, D., London. Fifth American edition from Sixth revised and enlarged English edition. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 471; cloth. (St. Louis Stationery & Book Co.; J. H. Chambers & Co.)

The appearance of the latest American edition of this well-known work will be welcomed by all those interested in the study of pathology. The additional chapters on "Tumors," "Septicemia and Pyemia" and on "Vegetable Parasites" add greatly to its former value.

In discussing vegetable parasites and the germ theory we find a conservative spirit, which is very timely in this era of enthusiastic devotion to yet unproved ideas and theories. We heartily commend it to all students of medicine as a reliable guide to the modern stage of pathological research. The binding and press work are worthy of the well-known firm by whom it is issued.

W. C. G.

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DIAGNOSIS AND TREATMENT OF DISEASES OF THE HEART. By CONSTANTINE PAUL. Translated from the French. *New York: Wm. Wood & Co.* 1884. 8vo.; pp. 335. (Wood's Library.) (St. Louis Stationery & Book Co.)

In the present addition to Wood's Library, the publishers have given to the public a really good work. As a translation from the French it is most excellent; the translator has been successful in turning into fluent English the peculiar phraseology and idioms of the French language.

In construction the book differs greatly from the standard English works on the Heart. In many respects it is very practical, although sufficiently exhaustive. The chapters on Organic Changes of the Heart are short but well written. The author's rejection of the pre-systolic murmur as a sign of mitral obstruction will not meet with favor in this country.

The secondary diseases of the heart and the diseases or rather disorders of other organs resulting from a diseased condition of the heart receive a well-merited prominence.

The final chapters on the Hygiene and Treatment of Heart Lesions are well written and mark the advanced therapeutics of the present day.

The work is well worthy of being in the library of the physician, and will be especially valuable for those who cannot find the time or inclination for the study of the more exhaustive English works. W. C. G.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BARTHOLOW, M. A., M. D., etc. Fifth Edition, Revised and Enlarged. *New York: D. Appleton & Co.* 8vo.; pp. 738; cloth.

Prof. Bartholow's work in the department of therapeutics has done much to bring about the reaction against the spirit of nihilism which was so prevalent in the profession for many years. It may be that he has too implicit faith in the efficacy of medication; yet we think his writings are exceedingly helpful to practitioner as well as student.

His style is attractive and, in the main, his observations are accurate and his ability as a therapeutist is well-known.

This edition is about one hundred pages larger than the preceding one, and has been modified to bring it into accord with the last revision of the pharmacopeia.

It is a valuable addition to any physician's library.

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AN AID TO MATERIA MEDICA. By ROBERT H. M. DAWBARN, M. D., etc. *New York: J. H. Vail & Co.* 1884. 12mo.; pp. 86; interleaved; cloth. (St. Louis: J. H. Chambers & Co.)

This little volume is simply an interleaved dose-book giving in a convenient form the doses of the pharmacopeia, and a few of the more important unofficinal drugs and preparations. The synonyms and a very brief description of the drugs are also given.

A table of solubility of chemicals in water and alcohol is also contained in the volume and an easy method of writing metric prescriptions.

MATERIA MEDICA AND THERAPEUTICS: An Introduction to the Rational Treatment of Disease. By J. MITCHELL BRUCE, M. A., Aberd., M. D., Lond., etc. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 16mo.; pp. 547; cloth.

This is one of those excellent little "Manuals for Students of Medicine" in course of preparation by this house.

The arrangement of essential details of the materia medica is concise and convenient and therefore easily memorized.

The author devotes most of his attention to the therapeutics, and traces the physiological action and uses of the drugs upon different parts of the body from their entrance to their elimination.

It will be a good book to study and one convenient for reference.

MICRO-ORGANISMS AND DISEASE. An Introduction into the Study of Micro-Organisms. By E. KLEIN, M. D., F. R. S. With 108 engravings. *London: Macmillan & Co.* 1884. 16mo.; pp. 196; cloth $1.00.

This little volume is a reprint of a most excellent series of articles that were printed during 1884 in *The Practitioner*. They constitute a graphic description of the methods used in the study of micro-organisms and clear instructions for those who desire to study the subject practically. Dr. Klein is not only a close and accurate observer but an admirable teacher, and this little volume is thoroughly commendable.

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH. Part V. April 1884. 8vo.; pp. 108; paper; 2s. 6d.

We have heretofore noticed the work of this society in studying a class of obscure phenomena which have hitherto received little attention from scientists.

Several of the papers included in this number are of considerable interest, particularly the reports on "Thought-Transference," a sub-

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ject which was one of the earliest studied by the committees of this society and with reference to which more definite observations and satisfactory results have thus far been reached. That there is such a thing as thought transference without the intervention of the ordinary means of communication seems to be now well established, but just what are the laws and conditions which govern this are not yet determined.

The work of this society is a very important one and its reports are of great interest and value.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the Colorado State Medical Society, Denver, June, 1884.——N. W. Ayer & Son's American Newspaper Annual.——Contributions to the Anatomy and Pathology of the Nervous System. By Richard Mollenhauer, M. D.——Practical Recommendations for the Exclusion and Prevention of Asiatic Cholera in North America. By John H. Rauch, M. D.——Western Trade Journal.——On Branchial Cysts of the Neck. By N. Senn, M. D. (Reprint from the Journal of the American Medical Association.)——Surgical Delusions and Follies. By John B. Roberts, A. M., M. D. Philadelphia: P. Blakiston, Son & Co., 12mo.; pp. 52; cloth. (J. H. Chambers & Co.)——Elements of Pathology. By Edward Rindfleisch, M. D. Revised by James Tyson, M. D. Philadelphia: P. Blakiston, Son & Co. 8vo.; pp. 263; cloth: $2.00. (J. H. Chambers & Co.)——Hand-Book of Skin Diseases. By Arthur Van Harlingen, M. D. With two colored plates. 8vo.; pp. 282; cloth. Philadelphia: P. Blakiston, Son & Co. (J. H. Chambers & Co.)——Physician's Visiting List for 1885, (Lindsay & Blakiston's.)——Explanation of the Pathology and Therapeutics of the Diseases of the Nerve Centres, especially Epilepsy. By J. McF. Gaston, M. D., Atlanta, Ga. (Advance sheets from Transactions of the Medical Association of Georgia.)——Madness and Crime. By Clark Bell, Esq. (Reprint from the Medico-Legal Journal.)——Annual Report of the Surgeon General United States Army, 1884.——The Story of My Life. By J. Marion Sims, M. D., LL. D. 1884. 8vo.; pp. 471; cloth $1.50. New York: D. Appleton & Co. (St. Louis Stationery & Book Co.——Doctrine of the Circulation. By J. C. Dalton, M. D. 1884. 8vo.; pp. 296; cloth. Philadelphia: Henry C. Lea's Son & Co. (St. Louis Stationery & Book Co.)——Physiological Physics. By J. M'Gregor Robertson, M. A., M. B., C. M. Illustrated with 219 engravings on wood. 1884. 16mo.; pp. 528; cloth. Philadelphia: Henry C. Lea's Son & Co. (St. Louis Stationery & Book Co.)——A Manual of Bandaging. By C. Henri Leonard, A. M., M. D. With 139 engravings. Second edition, revised and enlarged. 8vo.; pp. 159; cloth $1.50. Detroit: Illustrated Medical Journal Co. (St. Louis; J. H. Chambers & Co.)——Transactions Texas State Medical Association.

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REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

Puerperal Septicemia.—PROF. T. G. THOMAS in an address delivered at the First Annual Meeting of the New York State Medical Association, Nov. 19, 1884, says: "Were I called upon to sum up the treatment of a declared, undoubted case of puerperal septicemia, marked by the usual symptoms of pulse of 120, temperature 105° or 106°, which would meet the requirements of our time, I should give it categorically thus:

1. Quiet all pain by morphine hypodermically.
2. Wash out the uterine cavity with antiseptics.
3. Lower the temperature at once below a hundred, not by the barbarous method of the cold bath, but by the far better one of the coil of running water.
4. Feed the patient upon milk and nothing else, unless some good reason exists for changing it.
5. Exclude from her room all except the nurse and doctor, keeping her as quiet as possible.—*Med. News*, Nov. 22, 1884.

Preventive Measures in Obstetrics.—PROF. T. G. THOMAS says: "The day is, I feel sure, not far distant when preventive measures will be applied with a most triumphant result to placenta previa, puerperal nephritis, placental apnea, contracted pelvis, the obstinate and often fatal vomiting of pregnancy, and that extreme hydremia which so often results in thrombosis.

Obstetricians are beginning to question themselves as to whether it is wiser in the interests of both child and mother, to wait and watch during the last two months of pregnancy until a sudden and furious hemorrhage makes an issue unavoidable in placenta previa, a convulsion announces the point of tolerance in puerperal uremia, or the cessation of fetal movement tells the tale that the crippled intra-uterine lung has ceased to have power enough to prolong

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fetal life. The methods of inducing premature labor are now so simple, so certain, and so void of danger that they, more than at any previous time, present themselves as a sovereign resource in such cases.—*Med. Times*, Nov. 22, 1884.

MEDICINE AND THERAPEUTICS.

Muscular Rheumatism.—DR. L. L. TODD recommends for treatment of muscular rheumatism unattended by inflammation or sthenic condition, and neuralgia not accompanied by violent pain the following:

℞ Tr. guaiaci ammon.,
Tr. cimicifugæ racemosæ,
Vin. colchici,
Tr. gelsemii, aut
Tr. phytolaccæ decandræ, aa, - - - - ℥ j.

M. Sig. Teaspoonful in a wineglassful of sweetened water at each meal time until bowels are purged. After they become settled use as at first.—*Med. and Surg. Rep.*, Nov. 8, 1884.

Use of the Bromides.—DR. E. C. MANN finds that he averts the unpleasant symptoms which often attend the use of the bromides alone by giving early in the morning upon rising a capsule containing two drams of the inspissated Warburg's tincture, with a cool sponge bath and thorough rubbing with a Turkish towel. He then orders the following prescription, of which in mild cases a teaspoonful is to be taken twice or thrice daily in water and in epilepsy or mental cases with excitement, two teaspoonfuls thrice daily:

℞ Sodii bromidi, - - - - - - ℥ ss.
Ammon. bromidi, - - - - - - ℥ ss.
Potass. bromidi, - - - - - - ℥ j.
Syr. hypophosphitis co., - - - - ℥ iij.
Syr. tolutan., - - - - - - ℥ j.
Aquæ menth. pip., - - - - - ℥ iss.
Liq. potass. arsenit., - - - - - ℥ j. M.

—*Med. Bull.*, Nov. 1884.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

DISCUSSION OF DR. MCPHEETERS' PAPER CONTINUED.

Dr. Papin.—I remember a case which made quite an impression upon my mind some years ago. After delivering a woman of the child I found a great deal of difficulty in extracting the placenta,so that I introduced my hand into the womb and found what I had never seen before nor since, that the placenta gave evidence of calcareous degeneration, and adhered so closely that it was impossible to detach it entire. In this case for the first week or ten days following the delivery I used an intra-uterine injection of carbolic acid from two to five per cent, with notable good effect. I took the patient's temperature at the time, and before the injection it ran up to 102°, 103°, and even 104°, and an hour afterwards it had got down to 98°, 99° and 100° showing the benefit of these injections, but at the end of that time one of the consulting physicians objected to the use of injections, and at the earnest request of the friends of the family I was obliged to desist. This case went on from week to week and month to month until the poor woman finally lost her leg by embolism. Dr. McPheeters and Dr. Boisliniere saw her. Her leg had to be amputated at last. I merely refer to the case, not designing to give a full history of it, because it was one in which the intra-uterine washings, I am sure, had been of great advantage, and would have been still further useful, had I been permitted to continue them. I had no difficulty in using an ordinary soft catheter and securing a free return flow of the water from the womb. The womb was very flabby and the os wide open; it had not the usual consistency or vitality; its contractility was very much reduced as is usually found after parturition. A week after the confinement I could easily introduce my finger to the bottom and feel these little calcareous deposits and threads still hanging

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to the wall of the womb. I washed many of them out and the injections always lowered the temperature. Nine or ten days after, Dr. Boisliniere was called in consultation at the request of friends, and he regretted that I had not continued the intra-uterine injections, but it was then too late, as we were busy with other matters. It would have been a difficult matter to reach the cavity of the womb without some manipulations of rather a dangerous character, and hence they were abandoned for the time being. I would never use these intra-uterine injections except where there was free dilatation, and the water was allowed to flow out freely.

Dr. Gregory.—I would like to add to what I have said that I think we should not use these injections unless there is high fever, high temperature and offensive discharge, because I think a high fever is the principal indication for them.

Dr. Prewitt.—In regard to intra-uterine injections, I have had a little unpleasant experience myself, and I fully agree with Dr. Gregory that the existence of a discharge and symptoms of septic trouble would indicate the necessity of getting rid of the septic discharges, just as we would elsewhere. At the same time I can but feel that intra-uterine injections are fraught with great danger in spite of the perfect impunity with which some members of this society use them and the freedom with which they are advised. Now the uterus is an organ *sui generis* that furnishes us oftentimes with experiences by no means pleasant. All gynecological and obstetrical experience goes to show that death not infrequently occurs from very trifling operations or manipulations about the uterus; and in Dr. Gregory's case, as in many others, I am certain that the cause of the death was nothing but shock as we ordinarily understand it. I think as a rule the character of the injection has nothing to do with it. In Dr. Gregory's case it is very probable that if he had used bland water the result would have been the same. It is true iodine would make a more decided impression on the surface walls of the uterus, but the attempted explanation of these cases, that some of the injection passes into the uterine veins, or that there is a possibility of air getting into the veins is, I think, perfectly untenable; there is no good reason to believe that any of these things occur. I remember reporting a case which I saw two or three years ago where I had used uterine injections in a case of septicemia. I am under the impression now that it was upon the second washing that the trouble came. I used a fountain syringe,

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and not a strong stream of water, or a mild solution of carbolic acid. The patient complained of a sudden intense pain of the head, and this was afterwards followed by a rigor and fever that subsided the next day; at least the fever was less, but it rose up again and again on the use of the intra-uterine douche and was followed by precisely the same symptoms, this intense pain of the head. Now in that case I do not think any of the fluid nor any air entered into the veins, nor the abdominal cavity. In these cases we have the uterine walls very much contracted from what they were prior to the labor, contracting down and closing the uterine veins. In any event if the veins were open so that fluid could be injected into them the patient would bleed to death in 10 minutes. But this patulous condition of the veins does not exist, and you cannot throw water or fluid of any kind into the circulation in that way. I am just as well satisfied of that as I am that I live. I don't think it does occur naturally and it cannot be done artificially. We might just as well expect to throw fluid into the veins of an open wound which we may be washing out, it is just as practicable to do so in one case as the other. Besides this, the uterus has already contracted so that the surface of the placenta is occupied, and instead of being as broad as the two palms it is one quarter of that size. It could only be by plugging up the os absolutely, and by using a force that would distend the uterus that it would be possible to throw the fluid into the vessels; I am perfectly sure of this and I am satisfied that the two troubles we have been considering are not nature at all, but the result of shock. In cases of abscess of the lung where the pleural cavity has been opened suddenly, death has occurred from washing out the pleural cavity, and the post-mortem has not revealed a single thing to indicate the cause of death. I think it due to shock. The womb is so abundantly supplied with sympathetic nerves, that it is not surprising that intense shock should follow any manipulations about it. There is also something peculiar about the individuals most probably which leads to a sudden death.

Whenever the dangers and means of avoiding them can be pointed out so as to make it certain that we can wash out the cavity of the uterus with impunity, every obstetrician will consider it as his duty to do this in every case where there exists the slightest indication of septic trouble. Possibly, whenever there are indications of septic trouble; whenever there is evidence of putrescence

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of a discharge; whenever there is fever it may be his duty. I do not think however with Dr. Gregory, that it should not be done until high fever begins, because that is the very thing that we aim to avoid, and we do not wish to wait until the poisoning has occurred, but to nip it in the bud. So far as the ill effects of these cases of intra-uterine injections are concerned, they manifest themselves almost at once. But it might be said that the uterine orifice was not sufficiently open, in my case. The uterus is constantly throwing off fluid for a very considerable while after parturition, and I venture to say that for ten days we may pass the finger up into the uterus if it were necessary to do so, and still leave enough space for the return flow of the fluid, and I believe there always is space enough for a free return flow in the case of the non-pregnant uterus. Of course by independence and inattention we could plug up the uterine canal. In another case of parturition, where I was called to see the patient, septic fever had already occurred and I first placed the patient simply upon quinine, hoping it might disappear, but it grew worse and I resorted to uterine injections. In that case the patient complained in the same way of intense giddiness, not pain, especially, but swimming of the head, a peculiar feeling. This occurred two or three times. I used a fountain syringe, raised but slightly above the bed. I have never yet seen or heard of anything that will give a sure means of guarding against these freaks of the uterus. The ancient fathers regarded it as an organ that was to be touched very cautiously and tenderly, because they recognized the fact that it was a very queer organ, given to all sorts of freaks, and I think they were right.

Dr. Ford.—I merely wish to state that in my opinion the condition of the uterus must be very closely differentiated when these injections are given. There can be no doubt, as far as the discussion have gone in this society now and at previous meetings upon these very points, and from the course of my general information and reading, that there are cases where these symptoms should be attributed entirely to shock, and I think such cases as Dr. Gregory has reported this evening and the ones which Dr. Prewitt has mentioned are due to this cause, There is little doubt that the impression which is produced by even water either too cold or too warm upon the sensitive interior of the uterus stimulates and irritates that organ. The use of irritant intra-uterine injections when

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there is an incipient inflammation may produce very serious effects. It may produce shock, and I have no doubt that shock often does cause the death of of the patient in these cases. I must believe that it is possible to inject both air and fluids into the uterine sinuses and possibly into the general circulation. In this connection I must call attention to the very different conditions in which the uterus exists where these injections are practised:

1. In the unimpregnated condition.
2. After or shortly after healthy labor with good contraction, and
3. After abnormal labor where sepsis has set in.

Now I doubt very much whether any of these symptoms occur where we inject a uterus that is really firmly contracted and where the lochia is not offensive and where there is no fetor or incipient septicemia, nor endometritis or metritis, I doubt whether washing out the uterus would produce effects except what might be attributed to shock. But where we have sepsis, where there is incipient endometritis and septicemia and where the condition of the uterus is of non-contraction; in other words, where the tissues are relaxed and where the utero-placental veins gape, it is quite possible to force fluids into the uterine sinuses. It is a well-known anatomical fact that the veins of the uterus are canalized like certain veins of the neck, being attached to the surrounding muscular bundles. The openings which communicate with the interior of the uterus and which allow of the easy passage of the fluid, are by no means alway closed by thrombi. Where the whole womb is relaxed and the utero-placental orifices patulous, no great pressure would be required, simply repletion, the pressure of water which is unable to flow out fast enough would tend to distend the womb, still further dilate the utero-placental openings, and thus cause some of the fluid to enter the uterine sinuses. Subsequent uterine contraction might force a part of the fluid into the general circulation, absolute retention would be imperatively necessary for all this.

The matter, as regards safety, in this *particular aspect* is whether the water is allowed to flow out as fast as it goes in. There must be some pressure, although it should be as little as possible. It must be especially borne in mind that when we are called upon to make these uterine washings, as I have been several times, in cases of septicemia, the uterus is always relaxed, and very probably the protect-

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ive thrombi deliquescent or dissolved. Indeed,non-contraction of the uterus after labor is one of the most fertile causes of septic trouble and uterine inflammation, and this state of non-contraction and relaxation either primary or secondary is an invariable feature of pronounced sepsis or pyemia. Harm seldom comes to a well-contracted uterus, as long as it remains so.

Dr. Gregory.—The doctor speaks of thrombi loosening and of the inflammation due to this condition of sepsis. Now, it seems to me that all these are indications for intra-uterine washing, and I cannot but believe that it is best to take the risk with warm water under those circumstances. The possibility of the entrance of this bland fluid into the uterine veins should be risked rather than permit the risk of absorption of the poison. Besides it seems to me there is danger of thrombosis; and so it strikes me with these two dangers before us that we had better take the risk of the possibility of the warm fluid entering the veins than permit these rotting clots to remain in contact with the absorbing surfaces.

Dr. G. A. Moses.—I think Dr. Gregory has exactly touched the point at issue; we must take this risk unhesitatingly. The matter of intra-uterine injections is not a new one by any means. Some years ago while I was at the Medical Library at Philadelphia I was shown a very interesting collection of old and very rare medical works, and one of them especially struck me, the work of an old and very prominent writer in French classical medicine—I cannot remember the name now. The book was published over 200 years ago. In looking over this work I was attracted by the title of intra-uterine injections, and there I found an accurate description of the operation. In the first place the materials to be used were detailed and the method of applying them, with an excellent drawing of our regurgitating nozzle syringe.

When I was a young graduate at the City Hospital in 1861,while Dr. Jaminet was in charge, I remember being put in charge of a patient suffering with puerperal fever, and that he instructed me to wash out the uterus, and as I hesitated Dr.Jaminet showed me how to do it. We passed the catheter into the uterns and injected the womb. I remember having read somewhere of a post-mortem in a case after sudden death resulting, as it was supposed, from an intra-uterine injection, in which it was stated that air was discovered in the heart. I think there were one or two cases of this sort reported. There are many cases of sudden death reported. Barker

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reports four of his own; Lusk reports some, simply referring to others, without endeavoring to explain them. I don't think that there has been any explanation given except theoretically. There has been no definite post-mortem appearance made out. I have never been able to satisfy myself that the condition that Dr. Ford describes of the patulousness of the utero-placental openings and relaxation of the uterine sinuses really exists. It seems to me that the veins of the uterus must be closed very soon after labor either by muscular contraction or surrounding pressure,or by thrombi and the inflammatory changes that take place. Thrombi must be entirely loosened or dissolved in order to allow the veins to be patulous enough for fluid injected into the uterus to pass into the veins. This is possible although I think it must be a very rare accident, therefore I am disposed to attribute these accidents in which there is sudden death almost entirely to shock, except those who die,which is a very small number, from the passage of fluid through the patulous Fallopian tubes to the peritoneal cavity; thus causing peritonitis. There have been such cases reported after labor. I think Barker reports one case; that accident will occur occasionally though very rarely. As to the method of injecting, I think that the soft catheter suggested by Dr. Gregory is as good as anything that can be used; it is at hand; it can always be had clean and new. There is no direct force used; fluids can pass out rapidly and I have never seen any trouble in getting their immediate return. It is important that the quantity of fluid injected shall be allowed to return very promptly. Of course in the hyperesthetic condition of the inflamed uterine walls it is easy to produce very pronounced reflex action on the nervous system, a very small quantity of fluid in the uterine cavity is sufficient to excite a great deal of disturbance. Therefore I think the quantity injected should be very small. It should be cautiously graduated, poured in very slowly and care should be taken to have the fluid at the proper temperature. If we observe these points I think we will rarely have an accident. I think we should not deprive ourselves of such an important means to rid the system of poisonous matter, and it is the only thing we have to assist us if the cavity cannot be wiped out. It can always be washed out, and I think it is always safe and proper for us to use intra-uterine injections, and we may afterwards cleanse or mop out the womb with absorbent cotton. I think this practice renders it safer. I should use the ordinary syringe, either the ball

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syringe such as Dr. Ford exhibited one night before the Society or some form of fountain syringe, so as to avoid the possible injection of too great a quantity of fluid and so that the outflow of the fluid may not be impeded. The flow of the fluid should be steady and unintermittent. The new rule is to introduce the instrument with the patient upon her back, and we thus get rid of the necessity of an assistant. I think it is a far better position, as it assists the perfect return of the fluids which is not attained when the patient is upon the side. In some instances when this attitude is adopted, as in some of the German hospitals and in other places, constant irrigation of the uterus may be kept up without the slightest danger as long as necessary.

Dr. Prewitt.—I would like to ask Dr. Moses if he thinks that air gets into the veins and could be found in the heart?

Dr. G. A. Moses.—I never thought so, Doctor; I only tell you what I have seen reported. I never thought and don't think so; yet I must believe that air was found in the heart, although it may have been due to some other cause. That was the declaration that was made on the post-mortem; the heart was placed under water and bubbles of air came up.

Dr. Ford.—I wish to define my position more exactly. I did not intend in what I said to deny the propriety of using intra-uterine washing in case of septicemia or other cases where it is necessary. I imagine Dr. Gregory thought I was arguing in some way against them; I was not. I only intended to call attention to the possibility that under certain circumstances there was danger in doing so, which always ought to be borne in mind; but that notwithstanding that under all circumstances we were bound to use these washings where septicemia exists. One fundamental pathological condition of the uterus is that when inflamed it is relaxed, and this is the true cause of the trouble in post partum inflammation of the uterus. So far as pathological anatomy goes, there are numerous cases in which patulousness of the utero-placental openings has been determined so that fluid could be transported from the cavity of the uterus into the proper uterine sinuses, the enlargement of the uterus preventing the contraction, collapse and closure of its sinuses. There is thus more or less of a free communication between the uterine cavity and the interior of the uterus itself, so that fluids which are injected into the uterus may pass into the sinuses, and possibly into the general circulation; especially where fibrinous

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deposits and thrombi soften during the progress of the disease. But although these conditions exist, and must exist, they nevertheless are not a barrier or objection to our using intra-uterine washings. I have used them frequently myself with the very best results, and no one can be a more strenuous advocate of them than myself in all cases where discharges are putrid, whether there is a very high fever or not, except that I would take every possible precaution to avoid danger, and for this purpose use non-irritating fluids of a moderate temperature a very little above the temperature of the body.

Dr. McPheeters.—Recognizing the well-known fact that such accidents as that mentioned by Dr. Gregory do sometimes occur from intra-uterine injections, I said in my paper for obvious reasons they should not be used except in case of necessity; and then went on to state what constituted that necessity as in the event of threatened pyemia or septicemia from causes within the uterus. Now, although these accidents do sometimes occur, yet this, as Dr. Ford says, is no barrier to their use when they are necessary. The idea that I wanted to convey was that they should be cautiously used and only when necessary, but when this is the case we should take the risk, which after all is not very great, as untoward accidents are of rare occurrence. I have frequently known severe cases of uterine colic accompanied by nausea and vomiting brought on by vaginal injections of warm water. Then we all know that in catheterizing the urethra we occassionally have what is called urethral fever which in some cases causes death of the patient. Now I look upon the accidents that occur in intra-uterine injections somewhat in the same way that I do these occurring from catheterizing the urethra and yet they do not prevent us from using the catheter daily. These results occasionally occur, but they are exceptional, just as the disastrous results in intra-uterine injections are exceptional also. I don't use intra-uterine injections very often. The last occasion in which I resorted to them was a case in which there was a purulent discharge from the interior of the womb. The patient had a natural labor, but on the tenth day she was seized with a most violent chill and with the symptoms of puerperal fever, with a purulent discharge from the interior of the womb. This woman had pyemic abscesses, half a dozen of them, in different parts of the body. In that case, recognizing the fact that there was a serious trouble within the uterus, I

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used warm water injections into the cavity of the womb with the happiest results. The temperature was uniformly reduced after the use of these injections, and I kept them up for a week or ten days and until the pyemic symptoms passed off. In other words, I washed out the septic or pyemic matter from the interior of the womb and in that way got control as much as possible of the source of the difficulty. Now, in regard to the cause of death in these cases, I have no doubt that shock is by far the most frequent cause. It is possible, as Dr. Ford says, that the fluids used may enter the general circulation through patulous openings and sinuses, yet I think that death is too rapid to be attributed to this cause, and can only be accounted for on the hypothesis of shock. Again, the fluid which I have used and which is generally used is such a mild character—simply warm water—that were it to enter the circulation it would do no harm.

Dr. Prewitt.—Dr. Moses and Dr. McPheeters have spoken of the risk attending these injections; it is that very risk that I wish to speak of. Uterine washing does not usually result disastrously, but it does occasionally, as everybody knows. There is risk in catheterizing the urethra in many instances, but in the majority of instances we can do this without any apprehension at all. I have had cases where almost every attempt at manipulation was followed by rigor and high fever, but where it was absolutely necessary to do something. I speak of this because in the discussions before this Society at different times, this operation has been spoken of as one attended with no risk; it has been intimated that the result depended upon skill in manipulation upon the part of the operator and that if due precautions were taken that the uterus was properly patulous; that the stream was not thrown in with too much force, and that it was of the proper temperature, etc., there would under such circumstances be no risk at all. If I believed that, I would never deliver a woman without washing out the uterus from the time of delivery until she was well. If there was no risk it would be the thing to do in every instance, viz., to wash out the uterus from the beginning and so avoid the danger of septicemia. If there is no danger in doing so it would be the duty of the physician to do this, if he had any apprehension of septicemia, because it would be his duty to take every possible precaution to prevent it.

Dr. Papin.—You might as well give quinine to everybody because some people are afflicted with chills?

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Dr. Prewitt.—Not at all; it would be a very simple thing to do; most obstetricians was,out the vagina regularly, habitually in every case, and why should we not wash out the uterus if it were a perfectly harmless proceeding when done under proper precautions and with proper care to guard against disastrous results?

Dr. Papin.—In 100 cases of delivery how many cases of septic trouble do you have?

Dr. Prewitt.—That is another thing. Of course a great many cases get well without it, even as a great many wounds get well with simple dressing. But while most patients will get well without it, some patients do suffer with septicemia, and it is the duty of the prudent physician to guard against the possible infection. As I say if there were no danger in doing this thing I would do it constantly. But I cannot see the matter as Dr. Ford does. In regard to the patulous condition of these vessels I cannot believe it possible that these uterine sinuses are canalized, that the vessels stand open ready to receive the gush of fluid that is injected into the uterus, because if this were true the blood would flow out. I do not believe that when thrombi have been formed and afterwards broken down and come away that there are left the open mouths of vessels behind ready to receive this fluid and carry it on into the circulation. If they were open in that way the blood would flow out; the force of the circulation behind would force it to flow out; it ought to do it, and it would do it. I venture to say that you may take any erectile tissue; you may take the penis with its open mesh-work, corpora cavernosa, and cut it across, and if you throw water into it I venture to say that none of the fluid will get into the circulation, not one drop, unless you so absolutely close the orifice and then force the fluid directly into the sinuses. You may, however, wash these surfaces day after day, and not a drop of fluid will get into the circulation if you will simply leave it half a chance to get out. And nobody ever sees the uterus after parturition half as large as it is at the ninth month before the child is delivered; nobody ever sees it in these cases immediately following parturition completely relaxed. If the veins and sinuses of the uterus remained open for a few minutes the uterus would be completely filled with blood and the patient would be in danger of bleeding to death.

Dr. Boisliniere.—I have nothing to add except to say that I do not see how the injection of water even should it find its way into the circulation, could produce the results which have been men-

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tioned. It will be remembered that one of the methods of treating cholera has been to inject enormous quantities of water into the veins, and there have been no cases of death resulting, so far as I know. I think the disastrous consequence in these cases is the result of shock. With regard to the uterine veins being open, you know Hunter compared the surface of the uterus lately delivered of the placenta to the stump of an amputated limb, but soon after the birth of the child retraction takes place and closes these openings. Now, that is a provision of nature whereby these sinuses leading into the uterus are closed and the blood prevented from flowing out. Then the mouths of the sinuses are closed by a plug preventing the entrance of anything into the sinuses; it has a peculiar valve shape like a quill. These thrombi have been compared to so many little worms hanging to the surface of the uterus.

Dr. McPheeters.—What is your experience with reference to the use of intra-uterine injections?

Dr. Boisliniere.—Well, I use them simply as a hygienic measure. If the discharge is offensive I wash out the uterus because I wish to get rid of decomposing putrid materials which otherwise might be absorbed and produce septicemia.

Dr. S. G. Moses.—I wish to say that in my opinion the shock produced by the use of intra-uterine injections in the unimpregnated uteri results more than from any other cause by the liquid injected passing into the peritoneum. This was brought to my notice by a case of acute peritonitis occurring in an unimpregnated uterus, in which there had been an injection made by a practitioner who became very celebrated for curing leucorrhea by using intra-uterine injections. The patient was an English woman, and some time after the injection acute peritonitis was produced and I was sent for to make an autopsy, and it was found that there were traces of the injected matter in the Fallopian tube. Upon opening the uterus it was found that the nitrate of silver which had been used in the injection could be traced into the fallopian tube. The woman died from peritonitis, produced by the intra-uterine injection of nitrate of silver. I think that intra-uterine injections, especially into the unimpregnated uterus, should be used very cautiously, although I think they should be used where it is necessary; I have done it myself. I reported a case some years ago in which we washed out the uterus several times a day after the removal of a large fibroid. Dr. Boisliniere was present and assisted in the op-

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eration. The patient did very well, never had a rise of temperature, and we kept down any septic results by the washing out of the uterus freely and copiously twice a day with an injection of carbolic acid and water,—a very small percentage of carbolic acid. The lady got well and is now living. She never had any uterine trouble. But I think that intra-uterine injections should not be used in the unimpregnated uterus, except where absolutely necessity exists. They are very dangerous. In regard to the use of intra-uterine injections, "post partum," where there is septic trouble, or retained coagula, or fragments of placenta; or other decomposing matter in the uterus, I think that we should wash the uterine cavity out. Several years ago I was impressed with the necessity of this, and I believe that I can trace back in my obstetrical practice two cases of very fatal peritonitis or puerperal fever produced by septicemia, which I believe, had I known how to do it, might have been saved by intra-uterine washings. These cases occurred in my practice many years ago, before we heard anything about intra-uterine injections.

Dr: Lemoine.—You will perhaps be surprised to hear me say that my testimony is almost altogether negative in character. Although many years in obstetrical practice, and after some practice in uterine diseases, I have had but little actual experience in the use of intra-uterine injections. I am one among those to whom Dr. Gregory alluded in the beginning of his remarks, who have been deterred from the use of such measures by the reported cases of other physicians and through them learning of the suffering and deaths ensuing. But this is not with me a paramount reason for abstaining from the use of post-partum intra-uterine injections, for as Dr. Prewitt has just said, such disastrous results occur but rarely. A weighty reason is that such measures have seemed to me to be very rarely demanded. I have not found them necessary because, as Dr. Prewitt has further reminded us, the uterine orifice at this time, after labor, is relaxed, the passage to its cavity is large and patulous, and readily allows the evacuation of fluids that might induce septicemia if retained or obstructed. I have rarely had cases of blood-poisoning in my obstetric practice, and I may surely say that I have not seen a case which I could directly trace to the non-use of intra-uterine douches. I believe with Dr. Moses, that where we have attached portions of placenta or retained coagula, which are likely to produce this septic condition, it would be

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wise to employ intra-uterine injections, and I would have no hesitancy in resorting to antiseptic washes, guarded as has been here suggested, where there exists any evidence of decomposition, and where careful vaginal douching has failed to remove such evidences. I think such vaginal injections, not intra-uterine, may and ought to be resorted to, and they are often the source of safety to the patient, when and after the red flow has ceased. As, however, labor and its sequences are but natural processes, we may safely refrain from interference in the vast majority of instances.

Dr. Engelmann.—It is difficult to make any remarks without having heard the paper; but it seems to me, however, from part of the discussion which I have heard that it is more as to the propriety of uterine injections; and those who have spoken in favor of uterine injections have apparently defended them. I do not believe it is a matter which needs any defense; at least I have never looked upon it in that light for the past year or two. It seems to me it is one of those methods in our practice like every other which is fully accepted, and like every good method it achieves a decided object. As it is dangerous to use the knife by which we achieve our most decided success, so also on the other hand it causes the greatest danger. And so it is with intra-uterine injections: where they are in place they afford us much relief which we cannot otherwise obtain, and they are most decisively effective. It seems to me that as a method of practice they are so unquestionably accepted that the discussion should tend more perhaps to the safeguards which surround them. But I regret to hear such remarks as that because after parturition the os is patulous, the cavity open to allow the secretions to pass off, we should not make intra-uterine injections—at least so I have understood some one to say. Why, it might then be said, should we wash any wound? It certainly is much better to facilitate the outflow of the secretions from the lining membrane of the uterus through the uterine canal. Though the os may be patulous, we must certainly need intra-uterine injections under a great many conditions, and the results when used at the proper time are very striking. It is in the non-pregnant uterus that the dangers are greater, and there I believe, there are many conditions where the result is equally marked, perhaps not so immediate as in the parturient condition or after parturition, but it is more dangerous and we have to handle them very cautiously; and the greatest danger, I believe, in the non-pregnant state, is that

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of shock. But these uterine washings are of such striking service that I believe that the procedure has long passed the stage of being questionable, and that it is one of our safest means of relieving certain conditions. I think if we make these injections under the proper condition with the proper safeguards I should certainly not look upon them as dangers. I have used them very frequently in the pregnant and in the non-pregnant state, they were mostly cases which I did not attend from the beginning, and I have never seen the slightest ill results. On the contrary I have seen marked benefit, and frequently I think a decided improvement we could hardly have achieved in any other way so easily. There are conditions where the scoop may serve a very decisive purpose, but I do not think I have ever seen the slightest ill effects from intra-uterine washings, but I will say that they must be made carefully.

Dr. Prewitt.—What is the danger about them?

Dr. Engelmann.—What I should regard as one danger is that of carbolic acid poisoning, which I think I have seen from vaginal injections, and is greatly aggravated by the uterine injections. I have seen ladies who would go into a state of collapse from vaginal injections of a very weak carbolic acid solution; I have seen patients who would go into a state of collapse at once from the use of a solution from one to five per cent., using a teaspoonful in a quart of water when used as vaginal injection.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

INTESTINAL OBSTRUCTIONS.

Dr. Carson.—I have a very interesting specimen from a case of intestinal obstruction. I was called on Sunday evening by a physician to see a man in the western part of the city, 23 years of age, an Englishman, who stated to me that he had been taken sick about Thursday. He felt a little unwell and took a slight purgative. He then went to a drug store for a prescription and the druggist gave him six compound cathartic pills, four of which were to be taken that night, and if they didn't act, two more in the morning. He followed the druggist's advice, taking four compound cathartic pills, and having no action in the morning took the remaining pills. This was followed by calomel and jalap and a bottle of citrate of magnesia.

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When I saw him Sunday night after dark I found him with a pulse of about 140 and a slight elevation of temperature. The room was dark and the surroundings such that it was almost impossible to take any exact record of the case. He was vomiting stercoraceous matter and had some slight hiccough; there was a central pain with central distention of the abdomen. I advised his removal to the hospital as there were no persons that were capable of attending him, and ordered opium and poultices for that night.

I was detained in reaching the hospital as soon as I desired on yesterday morning, and in the mean time one of his friends, a minister, visited him and told me he was not as well. However, he had passed a painless night; the opium had relieved his pain, but otherwise he was worse. On reaching the hospital I found the hands cold and clammy and a pulse of about 140 and his condition very bad. He had stated the night before that about three or four years ago he had had a similar but much milder attack,which only lasted a day or so, and was relieved by an old woman—I think it was an African. I didn't pay much attention to his statement. I diagnosed acute intestinal obstruction and told him that his chances were nothing at all; that the only hope that I could hold out for him, and that was very slim, was in an operation. I wouldn't advise the operation; I wouldn't urge it in any way;I could not promise that it would increase his chances of recovery, but I thought it was the only thing that would give him any chance whatever. If on those conditions he wished an operation I was willing to operate, but I wanted him distinctly to understand that I did not in any way urge or encourage him to undergo the procedure. He talked with his friends and came to the conclusion that he would have it done. Upon opening the abdomen we found the small intestine distended, very dark but not soft or otherwise altered. Upon drawing out the distended intestine and pushing it downward we came upon a band extending from the intestine to the abdominal wall,which you see here very plainly marked, drawing the intestine up, making a diverticulum in the intestine, and through this was a fold. This band went entirely across the intestine which was looped through it, making quite a distinct narrowing of the gut. This band was ligatured and divided and the constriction was relieved; the patient died. On post-mortem this morning we found the congestion of the intestine had been very much relieved, but in parts it was still congested; there was some inflammation but

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otherwise no change had taken place in the intestinal tract or iu the peritoneal cavity, and I suppose that death resulted from his low condition and inability to resist the shock of the operation. I feel very well convinced that if this operation had been performed twenty-four hours sooner the patient would have recovered without any difficulty whatever. You will see this is the pouch or diverticulum of the intestine and has evidently been in existence a long time as has also this constriction. The intestine lay through it and I suppose the irritation caused by the pills that he had taken caused the constriction to follow. This I take to be about the centre or middle of the small intestine as near as we can judge.

I think that in many cases of intestinal obstruction if the operation were performed reasonably early or when the diagnosis is clearly made, as can be in many cases, a great number of patients would be saved who otherwise go to their graves.

Dr. Grindon.—How was the other end of the diverticulum attached?

Dr. Carson.—The other end of this band was attached to the abdominal wall just on the outer side and below the umbilicus. On each side from the colon were narrow bands maybe half or three quarters of an inch on the right side and on the left side, at corresponding sides from the colon. The patient gave no history of ill-health; stated that he had been in moderately good health with the exception perhaps of a malarial attack, and anybody of course is liable to that, but he gave no history of intestinal trouble.

Dr. Briggs.—What is your theory in regard to this being due to congenital deformities? it looks more like congenital conformation.

Dr. Carson.—It appears very strange there should be but this single band, and at no time we could discover any history of peritonitis, and even if there had been peritonitis it is rather strange that we should have this single band extending from the abdominal wall. The adhesions from the colon may have been also congenital.

Dr. Steele.—I would also in connection with a case of obstruction of the bowel call attention to a very reprehensible practice, that is the use of cathartics in such cases. We should raise our voices very loudly against, and the general profession should be warned of the great danger of giving doses of cathartics in these cases. I was called to see a friend suffering from obstruction of

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the bowels; he desired to see me in the capacity of a friend. He had been suffering six days, and the physician called gave a dose of calomel followed by salts. The bowels not responding, he gave several more doses of salts and castor oil and podophyllin, etc. Large amounts of injections were also given with no result. When I saw him his abdomen was markedly tympanitic but there was no stercoraceous vomiting, though he had nausea. At no time did he vomit stercoraceous matter. Dr. Gregory was called to meet the physician in consultation but failing to meet him he gave a hypodermic injection of morphine which was proper, though contrary to the idea of the doctor in attendance, who said, why should we give opium to dry up the secretions when more moisture was needed? I suggested morphia and atropia as the proper plan of treatment, but he was opposed to it. I tried electricity and injections of large quantities of hot water in the bowel, head down, etc. but without any good result, and when the physician finally came to the conclusion to consent to an operation it was too late. In this case I presume there was a tumor. Months before in playing with his children as they would strike or jump upon his abdomen he would shrink, indicating tenderness and irritation, so I suspect there was a tumor or some other pathological obstruction which possibly an operation would not have relieved. Nevertheless the early medical treatment did great injury; and the practice of giving large doses of cathartic medicines because a man's bowels are constipated often does irremediable harm.

Dr. Carson.—That is true; I entirely agree with what Dr. Steele says, but in most cases cathartics are taken by the patients themselves and they are more at fault than anybody else; they seek their druggist: we may say that the druggist is to a certain extent blamable, and yet he can hardly refuse to sell the medicine to patients when they seek and ask for it. If they tell him they are constipated and want something to move the bowels, the patients take the responsibility upon themselves. After the removal of the obstruction in the case I reported the intestines were returned without a great deal of difficulty; the gases passed down and there was a passage of flatus from the anus. The distension extended only to the constriction of the bowel; otherwise the bowel was natural, empty.

Dr. Steele.—Of course we should not use cathartics in such a case, we should rather use opiates and belladonna.

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Dr. Carson.—Opiates and warm applications are the only proper treatment in cases of this kind where an operation is not allowed. Where the affection is chronic and in the large intestine, colotomy is the operation to be performed, but, so far as I am concerned, I think I would sooner die than have an artificial anus. I don't know how it would be until I am called upon to decide, but to me there seems to be nothing more obnoxious than having a continual escape of feces, as there must be more or less from an artificial anus. I think that many of these cases of intestinal obstruction die from the dread of the operation by the patient and also on the part of the surgeon operating, while if the operation had been performed the patient might at least have had the best chance for recovery.

FRACTURE OF SPINE.

Dr. Carson.—It may be interesting to the gentlemen here who were present several weeks ago, when I reported a case of fracture of the spine, to hear the result. I saw the patient shortly after the receipt of the injury, within a very few hours, and applied a plaster jacket; the patient at the time was devoid of sensation and ability to move the extremities. I stated that immediately after the stretching he felt relieved from the pain and all the other symptoms were relieved; the fracture was in the lower portion of the dorsal region. The patient gradually recovered and the bad symptoms disappeared within a few days after the application of the splint, as did the other disagreeable symptoms, and he said to me to-day that he felt as though he could go out; I don't think he could run a race, but I think he has done very well indeed. We have had since that time another case which happened very much in the same manner; the injury is very nearly at the same site. The patient came into the hospital several days after the receipt of the injury in a much worse condition. We applied the jacket in this case, but not with any very decided improvement so far. The patient was unable to talk or feel the introduction of the catheter at the time he entered the hospital. At the present time whenever the catheter is introduced he feels it, but there is total loss of sensation in the lower extremities and his condition is not a favorable one, nor has there been any material benefit by the application of the splint. In this case, however, we did not suspend him as we did in the other; we tried extension and counter-extension from the hips and shoulders in the horizontal position.

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Dr. Steele.—The other evening the Doctor spoke about bandaging his patient, and it occurred to me that a better plan instead of suspending and then carrying the bandage around and around, which takes such a long time, would be to lay him on his back—you had him on a bed or stretcher, I believe?

Dr. Carson.—No, he was brought into the hospital on a cot without removing him from which he was put in the suspending apparatus, and as he was drawn up, the nurses supported him from the horizontal to the vertical position without any disturbance of the back until he was suspended, and then the extension was made from the extremities; and Dr. Tupper placed his hands at the site of solution of continuity, and extension was made by the nurses from the shoulders and under the hips, leaving the back or that portion of the body free to which we wished to apply the plaster jacket, in other words, from the hips to the armpits, and he was held in this position until the jacket was applied. A well padded splint or piece of board padded with an inch of cotton was placed along the spinal column; such a splint or board as we use in making splints for fractures of the arms, and the plaster wound firmly around that.

Dr. Steele.—I was thinking that if we took Canton flannel thoroughly saturated with plaster of Paris and have the patient lying on a board so that it is quite manageable holding the shoulders we might raise and lower him, and then the several layers of the Canton flannel—as in the bandage of Scultetus—could be slipped under the back and brought forward and allowed to harden in that way without being obliged to suspend him and wind the bandage around and around, which takes so long a time as to endanger his life if he were in a critical condition.

Dr. Carson.—Instead of using Canton flannel as Dr. Steele has suggested we saturate the ordinary white flannel bringing it around the body and applying it in this manner as Dr.Steele has suggested. The roller bandage is a very slow and inconvenient method in these cases; we want something new which can be applied rapidly and easily. The plan which we adopted I think is better than that suggested by Dr. Steele, that is having the hips and shoulders and head raised and leaving the portion of the spine or of the body to which we wish to apply the splint free.

Dr. Steele.—Of course if the portion of the spine where it is fractured is supported it would do very well to have stools under

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the shoulders and hips, but unless it is supported it would double up and cause serious trouble.

Dr. Carson.—We have been able to avoid that in the manner I have described. In the latter case I think possibly there was more or less effusion due to inflammation following the injury and pressure on the cord, and in that way we did not give him the prompt relief that we got in the first case, which we reduced in a short time after receiving the injury, instead of days, as in this case it only took hours.

RECTO-URETHRO-PERINEAL FISTULA.

Dr. Carson.—A patient about thirty years old presented himself at the hospital some weeks ago with recto-urethro-perineal fistula upon which the patient agreed to have an operation performed, and we made a median incision reaching to the bladder, where we discovered an abscess of the prostate which had hollowed out the entire substance of the prostate gland, especially the right lobe, leaving a mere hollow shell; there was a complete destruction of the membranous portion and part of the bulbous portion of the urethra. The diagnosis was made by Dr. Bryson. Upon seeing the case of abscess of the prostate I was inclined to think that it was peri-prostatic abscess until I cut into it and found the body of the prostate or the substance of the prostate almost entirely destroyed. The peculiar part of it was the entire destruction of the membranous and part of the bulbous portion of the urethra, for I think there must have been nearly an inch if not more of the urethra entirely gone. Of course the free incision allows of complete drainage, but what the result is going to be I cannot say. The wound looks well and is apparently doing very well; we cannot make out whether there is still any drainage through the intestine or not; the patient says he is uncertain about it.

Dr. Briggs was asked to give a report of anything of interest which he saw while in the East.

Dr. Briggs.—I was consulted in a case of abscess of the liver and the treatment determined upon was aspiration of the liver, but unfortunately I was only summoned in consultation the day before. I was obliged to leave at six o'clock next morning; and as the instrument would have to be sent sixty or seventy miles, I did not succeed in seeing the operation which promised to be very interesting. The patient was a member of a strumous family;

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there was no malarial poisoning which we could connect with causation of abscess of the liver. It is a very unique case in the neighborhood of Cape Cod where this case occurred, and was considered a great rarity there; it is a very healthy nighborhood, but like most of the eastern watering places, is laying the foundation for an epidemic of typhoid fever. There are a great many places just on the brink of such an epidemic, which would injure the prosperity of such places for some three or four years. If such an epidemic occurs they will clean up and regulate the sanitary affairs, but they will have lost a great deal of money; it is extremely difficult to have the proper precautions taken until there has been loss of life.

Dr. Steele.—I understand there is no sub-soil drainage there?

Dr. Briggs.—They are apt to depend upon a badly kept earth-closet which unfortunately does not have the principle of an earth-closet applied to it. The application of red clay should be made and the contents be removed at stated intervals, This they do not attend to; the sanitary precautions are very few. A great many of the visitors of these places are extremely anxious about it; a great many refuse to drink water except it has been boiled, in order that they may avoid any dangerous coutaminations from the vaults, and I presume a case of typhoid fever would immediately produce a dispersion of a very great number of the residents of such places; it would be a very great inconvenience to move, but it is the best thing to do under the circumstances. There are a great many problems connected with sea-bathing not understood at all; it is carried on in the most systematic manner, and in northern places there have been several deaths from it; it doesn't seem to be understood that there is danger from sudden and prolonged chilling especially upon persons whose powers of resistance are weakened in some manner.

Dr. Steele.—I observe that it is becoming the habit to take a warm shower bath when they come out of the surf to set up reaction.

Dr. Nelson.—There have been several papers in some of the eastern journals on that subject.

A NEW CLUB-FOOT SHOE.

Dr. Steele.—I have here an instrument intended to correct a common deformity of a foot. It was made for a boy 4 years old who, when he came to me three weeks since was walking on the outside of

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his feet, which were callous. If we divide talipes varus into three degrees, this case would belong markedly to the second degree. The equino-varus was congenital; it had been operated upon two years ago by the late Professor Lankford, who divided the tendo Achillis in each foot with the result of overcoming the equinus.

The feet being markedly deformed at the medio-tarsal joint I divided the plantar faschia and the tissues in the inner sole of the feet very thoroughly. The tibialis posticus is very often divided, but it is my opinion it seldom serves any good purpose. The division of the plantar fascia alone is of but little benefit because the muscular fibres attached to it keep the divided surfaces together. I passed the tenotomy knife in at the side and carried the point under the skin to about midway of the foot and divided everything down to the bone, and just as I was brirging it out I depressed the handle of the knife so as to avoid the tendon of the tibialis posticus which is inserted in the scaphoid bone. Some of the smaller arteries and nerves by such free incision may be divided, but they soon unite. I performed this operation on the little fellow in both feet, and with all manual power possible straightened them. Keeping the foot held in the improved position. I placed a thin board to the sole and confined it to the foot with a plaster of Paris bandage using the board which was a little larger than the sole as a lever to hold the foot straight: the plaster bandage was carried up the leg and soon hardening the foot was firmly fixed; thus I got both feet in a good position. Two weeks after on removing the plaster of Paris bandage the effect was found to be satisfactory, although there was still some deformity, and as I did not feel inclined to use the ordinary shoe and desired to still further straighten the foot I devised the shoe I exhibit, for the purpose of completing the cure. From two plaster casts I show you of talipes varus, one of an infant the other aged eleven, you observe that the deformity exists at the medio-tarsal joint the anterior part of the foot is changed in relation to the posterior part, the trouble is not at the ankle as many of the appliances for its cure would seem to indicate. From this skeleton foot you observe how free is the motion at the mediotarsus, between the astragalus and scaphoid is almost a ball and socket joint. Now this new shoe is intended to fix the foot in any one position, by its use the anterior part of the foot can be changed in relation to the posterior.

The sole plate (steel) of the shoe is broken opposite the medio-

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tarsus, and the two parts connected by a ball and socket joint, the socket being made in two halves, clamped together by a screw, worked with a key. It is a similar idea to what is found attached to the ordinary forehead mirror. The posterior part of the foot being well-laced and held in the heel of the shoe, the anterior part of the foot, also well-laced,but to the anterior plate can be placed,one hand grasping the heel the other the front of the shoe,in any position desired, i. e., in an improved position and then held by clamping the joint. In the present instance the anterior part in relation to the posterior would be carried outward, upward and rotated outward—just the reverse of the deformity. This being repeated daily with the use of some force the shortened tissues lengthen and and the lengthened tissues shorten, and thus improvement is had until the foot is quite ready for the walking shoe, which, be it understood this is not, for while here is a joint it is not for motion but simply for adaptation and fixation in any position, and yet patients do walk about wearing the appliance. In its construction the ball is roughened that it may the better bind and the screw and key are both large that needed force may be used to well fix. The same principle is applied in the treatment of Pott's disease in the neck.

As a rule I am opposed to tenotomy in young subjects. In the case of an infant, like the original of this cast and I believe that frequent manipulationswill bring the foot around into good position, and if persisted in the child in time will have a fairly normal foot. Every time a tendon is divided the muscle to which it is attached contracts, and is therefore weakened. If it is divided the second, third or fourth time the final limit of the contraction is reached and we have no more muscle left. I have seen feet in which the tendons had been so frequently divided that nothing was left of the muscles, and so loose were the feet that one was reminded of a flail. A good position was obtained, but what avails position without muscle; more time and perseverance may be required without tenotomy but better results and more useful limbs in other ways. In a case like that from whom this cast was taken, a boy 11 years old, it may be necessary to divide the tendons, the parts being so long abnormally fixed, in order to get position, but in young subjects if the treatment is commenced immediately will rarely be necessary to use the knife.

Dr. Todd.—I think in infants the application of adhesive straps has been made use of to correct malposition, has it not?

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Dr. Steele.—Yes, though frequently it produces eczema of the skin but an alum solution may be used to harden the parts to which it is applied.

Dr. G. A. Moses.—Would you ever use adhesive straps without operation?

Dr. Steele.—Certainly in the case of a young infant.

Dr. G. A. Moses.—Some years ago I came in contact with more of these cases than I do now. I recollect being much impressed with the same view as advanced by Dr. Steele here to-night, that in the large majority of cases when the condition was recognized and treated in infancy as it ought to be done, operations were unnecessary. I have thus treated several cases, one particularly, a very severe talipes in each foot of an infant that I saw from birth. I treated it simply by manipulation, extension and the use of adhesive straps and possibly a paste-board splint. The result was perfect without operation. In such cases it is not necessary to operate.

Dr. Prewitt.—Many of these cases, if seen early, can be remedied without any cutting operation, but in many you are obliged to resort to tenotomy because they are unwilling to submit to the otherwise long treatment necessary. So far as manual extension is concerned you will have to do it yourself, if you expect o accomplish anything by it; the mother will not follow out the instructions as a rule. I have in some cases divided the tendon not because it was actually necessary, but because I thought it was the only way to accomplish a good result, because I felt that proper manipulation would not be carried out. While it may be possible by repeated divisions to produce contraction of the muscles such as Dr. Steele has spoken of, still it is not necessary to divide the tendon more than once; patients upon whom I have operated have always had good use of the foot and perfect control over it. In regard to the shoe presented here for our inspection there are certainly some ingenious ideas connected with it, but in older children it would not answer the purpose, for it would not be easy to walk about in it. We wish the child to put the weight upon and bring the plantar surface squarely upon the floor, and so spread the foot out and rectify the position—this will do it to a considerable extent; in young children one or two years we have to hold it, and a simple apparatus will answer the purpose generally. Such an apparatus as the late Professor Hodgen devised could be attached to the foot in

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that position and artificial muscles made to answer a good purpose and renewed when they lose their elasticity. It is better than adhesive straps in holding the foot in position; it fixes it firmly. In older cases where the deformity has become very great and the plantar fascia and other tissues contracted, it requires pretty free division to enable the foot to be brought around. Dr. Bradford, of Boston, has devised an iron apparatus by which the parts can be forced into a correct position by mechanical means at a single sitting. The foot is placed upon a plate and by means of screws which hold it on either side and under cushions applied over the head of the astragalus is thus forced down into position rupturing the tissues, and he has had very good results. I have a case that has been under my care for a good while in a girl some seventeen years of age she walked upon the astragalus and she suffered a good deal. I divided the plantar fascia, and by force brought the foot around in such a way as to be able to put upon it a sandal shoe. It has so improved that she now walks upon the plantar surface. I have been intending to use Dr. Bradford's method in forcing the foot into still better position, but have not yet had an opportunity. In that case I shall probably have to divide the plantar structures again, as there is great resistance there, and I think in a great many of these cases we can accomplish good results in that way.

Dr. Grindon.—I would like to ask Dr. Steele how the interstices between the cut ends of a tendon are filled in, whether the plantar tendon is reproduced or not?

Dr. Steele.—I can't tell about that, except that there is fibrous tissue which in time acquires the structural character of the old tendon and becomes as serviceable as it.

Dr. Todd referred to a case of a young woman whose foot was drawn up and twisted out of position. Under chloroform the deformity disappeared to again reappear when the effects of the anesthetic passed off. It was suggested to have been a peculiar case of hysteria.

Dr. Leete.—I would suggest that it is among the possibilities that the foot was kept in the position of deformity by will power and that hysteria was not at the bottom of it. I am prepared to believe a great deal in respect to maligering when I recall my experience in the army, and remember that men determined to be discharged pretended that they suffered from all sorts of deform-

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ities and appeared to be willing to undergo any operation in order to be relieved from service. I also remember a very curious incident which leads me to suspect that probably some of the dumb animals share in this sort of inclination for deception. On one occasion taking a mule driver to task for what appeared to me excessive cruelty in compelling a mule which was apparently walking with great pain to perform work, I asked him if he was not ashamed to compel a mule to work in such a condition. He told that it was only a trick of the mule, and after a few moments I observed that the shoe was perfectly bright, showing that the mule could and,did walk upon the hoof a part of the time. I am prepared to believe a good deal after seeing men who insisted that an arm for instance could not be carried away from the side or that it could not be straightened out or that a thumb could not be removed from the back of the hand, and such capers as that.

Dr. Steele.—In regard to a point or two made by Dr. Prewitt, first, I distinctly stated that this is not a walking shoe; that it was to be used to correct the deformity in the foot. The case is still under treatment but I am certain to obtain a good result from the treatment adopted; second, division of a tendon weakens its muscle. It is an already contracted muscle, we are asked to divide, and by such division that it shortens still more; mere convenience should not prompt us to do an injury so that in infants or cases when the malposition of the foot can be measurably rectified by manual force cutting should be avoided.

In another class of cases where time and use in vicious position have so fixed the deformity that the ligaments have shortened and the bones mal-shaped, tenotomy, as an accessory measure of cure may be employed. In such a case as this of which I show you the cast in a boy aged 11 years. Usually nothing could be done in the way of rectification, great mechanical force was employed, as necessary to break the shortened tissues. I had never seen the machine of Dr. Bradford, but I devised one working with screws and pads by which, after tenotomy, I was able to force the foot into fairly good shape. The only other resource in such cases is the removal of a wedge from the tarsus or, one or more of the tarsal bones. Mr. Davy, of Westminster Hospital, has often done the former successfully.

Dr. Prewitt.—It is just in that class of cases where the Germans have been in the habit of operating by taking out a wedge-shaped

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piece, cases of great distortion of the bones in which it was claimed the deformity was such as to render it impossible to be corrected by any sort of apparatus that looked to the repositioning of the parts. It is in this class of cases that Dr. Bradford's instrument has been used to advantage and he claims that the position can be corrected in one sitting. I think it is exactly such an apparatus as Dr. Steele describes. The damage occasioned from the forcible repositioning of the bones at a single sitting is not what we might suppose would occur.

Dr. Todd.—Is it possible to exercise such a crushing action on the spongy bones and not to produce necrosis,or at all events synovitis?

Dr. Prewitt.—That has not been the result so far.

Dr. Steele.—I would say to Dr. Todd that such effect is not probable with the force we employ. I do not think that inflammation in the parts would be followed by necrosis, unless there was a scrofulous tendency, and if synovitis should set up we should adopt for its treatment just the means we employ after the use of the mechanical force, namely, immobilizing the parts in the plaster of Paris bandage.

Dr. Todd.—If a man gets a blow on the head of the tibia he will stand a pretty good chance of necrosis.

Dr. Prewitt.—It is not so likely to follow when you have an injury inflicted in that way if it is treated as the Doctor says he treats these cases. Of course I could not say in a case where there is a protracted injury. I have now under treatment in the hospital a man who had a nail in his shoe, and instead of removing it continued to walk about upon it until it gouged his heel and set up more or less irritation, and as a result an inflammation which extended up to the ankle. The parts became swollen, pus formed and opened spontaneously. A sinus resulted and continued open thongh rest was given the parts. I was finally obliged to make free incision and gouge out the necrosed portion of bone. The foot improved but has not yet healed up, and indeed it is a very tedious and undesirable case to treat, but this was the result of protracted injury extending from the soft part to the bone. When this sort of disease extends it is one of the most troublesome things to deal with that I know of.

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CHICAGO MEDICAL SOCIETY.

RESOLUTIONS CONCERNING CHOLERA.

The committee appointed at the meeting of the Chicago Medical Society, September 15, 1884, to consider and report upon a series of resolutions presented by Dr. Liston H. Montgomery having reference to national sanitary matters, respectfully report the following preamble and resolutions as suitable to be adopted,

WHEREAS, Experience has firmly established the fact that the ravages of certain infectious and contagious diseases may be in good measure prevented, restricted or arrested by the enforcement of suitable sanitable regulations, and

WHEREAS, The United States is constantly exposed to the importation of disease from foreign countries, and subject, because of the facility and rapidity of inter-state transit, to the rapid spread of infection once finding lodgment on our borders, and

WHEREAS, This exposure because of the prevalence of cholera in Europe is just now unusually great; and

WHEREAS, The facts are that matters of sanitation are in some of the states of this union entirely neglected, while in others they are simply taken cognizance of by the appointment of boards of health in their functions advisory only, and unclothed with powers of authoritive action, and

WHEREAS, Either of these state boards of health, as now constituted, may prove derelict or inefficient in its duties, or act without concert with or even in antagonism to the boards of other states, and

WHEREAS, The exigences occasioned by the appearance of violent epidemics, demand organized means for the prompt recognition of the outbreak of disease, and vested authority limited in its area by the boundaries of the country only, to take such immediate steps in matters of protection, as vaccination, isolation, quarantine, etc., as experience has taught to be useful, and

WHEREAS, No national authority in sanitary matters now exists, therefore

Resolved, That it is the judgment of the Chicago Medical Society that the sanitary interests of the United States demand the establishment of a permanent national health authority which shall have for its main functions, the detection of pestilential and epi-

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demic diseases, and the enforcement, where necessary, of sanitary regulations tending to prevent, to abate, or suppress them.

Resolved, That as a step toward the consummation of the idea suggested in the foregoing resolutions, a committee of three be appointed by the society to collate facts tending to show the usefulness, and necessity of a national sanitary organization, and to compile the same in such form as may be available for disseminating information upon and creating an interest in national sanitary legislation;

Resolved, That the said committee be empowered and instructed to urge the importance of national legislation upon the attention of the congressional delegation from Illinois, and fittingly to present the subject to the representatives of the people in both Houses of Congress. All of which is respectfully submitted.

[Signed.] O. C. DEWOLF, Chairman.
R. E. STARKWEATHER, L. H. MONTGOMERY,
JOHN BARTLETT J. H. ETHERIDGE,
A. R. JACKSON, J. H. HOLLISTER,
Committee.

A motion prevailed that the suggestions embodied in the resolutions be adopted, which was unanimous, and Drs. Bartlett, R. E. Starkweather and J. H. Hollister were appointed on the committee.

NATIONAL ASSOCIATION OF HEALTH BOARDS.

According to appointment the adjourned meeting of the National Association of Boards of Health convened in Washington Dec. 10, 1884, with a large representation of delegates from all parts of the country. The president of the association, Dr. Erastus Brooks, addressed the association, noting the present state of our knowledge in regard to cholera, the present views of the germ origin of disease, and censuring Dr. Hamilton, of the U. S. Marine Hospital Service for asserting that all had been done that could be done to prevent the approach of cholera to this country, and that no further government aid was needed. Dr. Brooks thought that he voiced the sentiments of the association in saying that the government ought to take hold vigorously of this matter.

Dr. W. M. Smith, health officer of New York City, read a paper

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on the "Failure of Maritime Regulations," holding that these regulations are entirely inadequate to prevent the introduction of infectious and contagious diseases, this being due largely to the unreliability of bills of health. This paper was referred to the committee on federal legislation.

In the afternoon a visit was made to the Secretary of State and to the President, both of whom expressed hearty sympathy with the objects of the association and promised cooperation in any way in their power.

After reassembling the association heard a long and interesting report from Dr. Geo. M. Sternberg with reference to the tests carried on at the biological laboratory of Johns Hopkins University as to the relative germicide value of different disinfectants. He estimates that it would cost $1,000 to complete these investigations as planned by the association. This report was supplemented by one from Dr. J. H. Raymond, of Brooklyn, who is a member of the same committee. Dr. Rauch urged that the report be completed by March 1, 1885.

A resolution was offered by Dr. Reeves, of West Virginia, and referred to the committee on federal legislation to the effect that an international board of health be formed, consisting of one or more members from each maritime nation, to take cognizance of all matters relating to shipping and the water carriage of persons and cargoes.

Reports were then presented by the different delegates, with reference to the sanitary condition of their respective localities.

These same reports were continued on the morning of the 11th. Among other points of interest, Dr. J. G. Cabel, of Richmond, called attention to the disproportionate mortality among the colored people of that city. He attributed this chiefly to their poverty, rather than to inferior constitution or bad sanitary condition.

Dr. A. J. Arbeely, formerly of Damascus, Syria, but now of this city, a visitor to the conference, stated that cholera came through water, food or the unwholesome condition of the cities. Drunken people are more susceptible to the disease than those who keep sober. Half of the battle is to run away from the cholera. Those people who went away to the mountains several thousand feet above the sea were never attacked. Those who eat cucumbers, egg-plants and unripe fruits are attacked first.

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The committee on state action reported that the laws in the different states vary so much that there are only a few points in which concerted action seems practicable. Personal and municipal cleanliness is the basis of safety and they held that the state and local boards of health should be recognized by the national government as authority to indicate sanitary measures.

The committee on municipal action recommended that all surface wells be closed; that all privy vaults be abolished; that stagnant ponds should, when practicable, be disinfected; that sewers should be left free from obstruction, and no accumulation of garbage or other filth be allowed in cellars or yards; that the food supply be vigorously watched; that habits of cleanliness be maintained in both public and private institutions; that should cholera appear in this country the health authorities in the place should have immediate notice of the first cases, in order that prompt action be taken.

During the intermission conferences were held with the Secretary of the Treasury in regard to the best means of disinfecting rags and preventing the introductiou of disease through their agency; also with the Secretary of State with reference to the consular regulations governing the inspection of vessels.

At the afternoon session a resolution was offered by Dr. Hunt and adopted by the association, urging thorough organization and contingent appropriations for the exigencies of cholera epidemics.

A resolution by Dr.McFarland, of Savannah, urging the enactment of a law making vaccination and revaccination compulsory in the discretion of state and local boards of health, was referred to the committee on federal legislation.

The committee on federal legislation reported an outline of a bill recommending the establishment of a national board of health organized on a different basis from that lately in existence. The committee were instructed to complete their report in the form of a memorial to Congress.

The same committee offered a further report looking to better medical service on board passenger ships, and recommending the appointment of an international committee to secure cooperation of other governments in this matter. The report was adopted and then after the usual votes of thanks the conference adjourned *sine die.*

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FOREIGN CORRESPONDENCE.

LONDON LETTER.

LONDON MEDICAL SCHOOLS.—MEDICO-CHIRURGICAL SOCIETY.—UNREDUCED DISLOCATIONS OF FEMUR.—CIRSOID ANEURISM.—HARVEIAN ORATION.—THERAPEUTICAL REFORM.—GOVERNMENT INSPECTION OF MEDICINES.—ROYAL COLLEGE OF PHYSICIANS.—DIPLOMAS OF DIFFERENT MEDICAL CORPORATIONS.—TITLE OF "DR."—LOWERING THE STANDARD.—APOTHECARIES' SOCIETY.—SUCKING TRACHEOTOMY TUBE IN DIPHTHERIA.

LONDON, November, 1884.

The active work of the medical world in London is now again in full swing. The hospital medical schools have received the usual complement of new men, which this year has been slightly in excess of last, the total reaching 609. St. Bartholomew's again heads the list with an entry of 125 new students. The medical societies have also recommenced their meetings. The Medico-Chirurgical Society held its first meeting on October 28, when a paper was read from Mr. W. Adams on Unreduced Spontaneous Dislocation of the Femur on to the Dorsum Ilii, for the relief of which he advocated excision of the head of the femur. He exemplified his paper by the case of a boy aged eleven, who suffered from a dislocation of the head of the femur on to the dorsum ilii occurring during an attack of rheumatic fever. The limb remained in a contracted and useless position, so that the head of the bone was excised in March 1882. Two unsuccessful attempts at reduction had been made previously. After the operation the patient progressed favorably. He was now shown at the meeting, and the limb was found to be perfectly straight with the movements at the hip joint free in all directions, and he was able to walk without the use of

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crutches and with only a slight limp. Mr. Adams mentioned three classes of cases in which he thought excision of the head of the bone would be found applicable; viz., 1. Dislocation occurring during the progress of fever; 2. Dislocation occurring in cases of paralysis, generally infantile but occasionally in the adult; 3. Dislocation occurring in the first stage of hip-joint disease without suppuration. He only advocated excision when all attempts at reduction had failed and when sufficient freedom of motion could not be obtained by tenotomy and passive movements. He also thought the operation might be applicable to some cases of fibrous anchylosis following hip-joint disease where the limb remained contracted, as free motion was seldom attained by simply dividing the neck of the bone. Exception was taken as to the occurrence of spontaneous dislocations in infantile paralysis and in the early stage of hip-joint disease before any suppuration had taken place, but Mr. Adams said that he had seen such cases.

Another paper was read from Mr. Walter Edmunds of St. Thomas' Hospital upon a case of Cirsoid Aneurism of the Dorsalis Pedis Artery, where the aneurism had been dissected out. Mr. Hulke stated that he preferred the treatment of such aneurisms by galvano-puncture. In the case of an aneurism of the supra-orbital branch of the ophthalmic artery he had found galvano-puncture very efficacious.

The Harveian Oration was delivered at the Royal College of Physicians on October 18 (St. Luke's Day), by Dr. Russell Reynolds of University College Hospital. In former years it has been the custom to deliver this oration on June 26, the anniversary of the burial of Harvey. The change has been made to commemorate the removal of the remains of Harvey to the new sarcophagus in Hempstead church, which was described in a former letter to the COURIER as taking place on St. Luke's Day last year. The change is not altogether free from objection, as the earlier date occurred in the middle of the London season and the delivery of the oration was attended by many distinguished personages and statesmen, who were thus brought to take an interest in medical matters and medical institutions, but in October many of the leading public men are out of town. This year very few attended at the college besides medical men.

At a *comitia* of the Royal College of Physicians held on October 30, Dr. Mahomed moved: "That a committee be appointed to con-

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sider whether any means might be advantageously adopted by the government or other public body to ascertain and certify the composition and quality of patent and manufactured medicines, of unofficinal and also of officinal drugs, and of all drugs dispensed under the prescriptions of registered medical practitioners. That the committee report to the College at an early date."

Dr. Mahomed had explained his views of what he calls "Therapeutical Reform" in a letter to the *Lancet* of October 4. He therein suggests that the government should establish "an extensive analytical laboratory in which all pharmaceutical preparations dispensed in this country, whether of home manufacture or imported, should be analyzed, and if found efficiently and accurately prepared should be stamped and certified as genuine. The articles would be sent to the laboratory in bulk, a sample would be analyzed,and the bottling and stamping would be performed while in bond. The charge made for stamping would be amply sufficient to cover the expenses of the laboratories, and would probably prove an important source of revenue to the state." He goes on to say: "No corporate body can so properly and so powerfully move in this matter as the Royal College of Physicians of London,for not only does its charter confer upon the College the right to'supervise and examine all manner of medicines' used by physicians in London, but (by 32 Henry VIII, c. 40) the College is enjoined to choose four censors from 'the best learned,wisest and most discreet' of the fellows, who 'shall and may, by virtue of this present Act, have full authority and power, as often as they shall think meet and convenient, to enter into the house or houses of all and every apothecary * * * to search, view, and see such apothecary wares, drugs, and stuffs as the said apothecaries or any of them have or at any time hereafter shall have in their house or houses; and all such wares,drugs and stuffs as the said four persons shall there find defective, corrupted and not meet nor convenient to be administered in any medicine for the health of man's body, the said four persons * * * shall cause to be burnt or otherwise destroy the same * * * "

"The necessity for this inspection and examination of drugs which was felt in the reign of King Henry VIII, probably exists in no diminished degree to-day, and the College may feel that though the same machinery is no longer competent to fulfil the duties and responsibilities imposed upon the College by statute, it is nevertheless incumbent upon it either to undertake these neg-

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lected duties itself or to urge upon the government the adoption of some suitable method directed to attain the same end."

Since the abandonment of the Government Medical Reform Bill the medical corporations have been thrown into a state of feverish activity, each of them trying to secure the greatest number of candidates for its examinations with as far as possible conforming to the now accepted principle that every diploma granted should be a guarantee that the possessor has passed a fair examination in the three chief branches of medical education, viz., medicine, surgery and midwifery. The Royal College of Physicians in Edinburgh has tried to remove the slur which has been thrown upon its reputation during the recent inquiries into the working of the Medical Act, by refusing to grant any longer its single qualification in medicine. This action will greatly reduce its receipts, as the flock of men who, plucked by the London examining boards, yearly resorted to Edinburgh for a medical diploma will now cease to do so. The Edinburgh College has also lost greatly in public esteem by allowing, if not encouraging, its licentiates to assume the title of "Dr.," a title it has no power to grant.

The College of Physicians and Surgeons in London are at present engaged at tinkering up a conjoined scheme by which the diploma of one college will not be granted to a candidate who has not also passed the examinations and is qualified to receive the diploma of the other. For this double qualification the students' fees are to be more than doubled. This has raised a loud out-cry against the measure from the students and teachers of the metropolitan schools. The teachers are now in great dread that the number of their pupils will be reduced by the temptations offered by the Scotch, Irish, and provincial schools of medicine, where (what is supposed to be) the coveted title of "Dr." can be obtained on such very much easier terms than in London. But the dread is to a great extent imaginary, as the number of students entering the London Hospitals is not decreasing, and the medical graduates of the older universities invariably complete their course in London, so that as long as London turns out the best educated medical men in the kingdom, whether called "Dr." or plain "Mr.", it need not fear that any material reduction will be made in the number of students seeking instruction in its medical schools.

To retain the medical students in London it has been suggested that the Royal Colleges of Physicians and Surgeons should apply

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for power to confer degrees in medicine so as to compete successfully with the Scotch and Irish universities. It would be a most ludicrous thing for a university to be established simply for medicine, and disassociated from the other arts and faculties usually considered as branches of a liberal education. Degrees from such a source could not carry with them the prestige which at present belongs to those granted by the older and more honorable universities of this country. To lower the status of the M. D. degree would not be to the real advantage of either the profession or the public. It would be a sad yielding to mercenary considerations if our Royal Colleges of Physicians and Surgeons should combine to lower the status of the English M. D.'s and a proceeding it can hardly be believed they really seriously contemplate. Should such be the case, it is scarcely conceivable that the legislature, including as it does many members who understand what university education is in its broader sense, would for a moment entertain the proposal. The only proper remedy for the state of things now so justly complained of, is for the corporations to combine in forwarding legislation on the lines of the recent Medical Act which was withdrawn last session. Instead of lowering and multiplying the degree of "doctor of medicine", the Scotch and Irish universities should be restrained from conferring the degrees on such easy terms as at present. The legislation to which I have referred would have had that effect. It would have established an equal minimum examination in each division of the kingdom which would qualify men for general practice and the degrees would only be sought by those whose ambitition or talents led them to aspire to the higher walks of the profession. The act would also have made illegal the assumption of false titles such as has been the case with licentiates of the College of Physicians of Edinburgh.

But it is more than probable that the Royal Colleges will be checkmated by the Apothecaries' Company which they have so systematically snubbed. The Apothecaries' Company has sought admission into the conjoined scheme put forth by the Colleges of Physicians and Surgeons, and was included some years ago when a similar project was under consideration, but now an attempt has been made to leave the Apothecaries' Society out in the cold, a procedure which that body naturally resents, and it is about to apply for powers to examine in surgery or refuse its license to any who do not hold a surgical qualification. At present the Apothecaries'

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Society by its charter can only examine and give a license in medicine, therapeutics and midwifery, and has not the power of examining in surgery. Should the Society succeed in obtaining the additional power it has now decided to apply for, it will grant a complete qualification at a cost of about one-fifth of that intended to be imposed for the conjoined license of the other corporations.

Some few weeks ago Dr. Rabbeth, the house surgeon of one of our hospitals, during the performance of an operation for tracheotomy for diphtheria placed his mouth to the tube, which had become blocked with false membrane, and cleared it by suction. This did not save the life of the child on whom the operation was performed and ended in Dr. Rabbeth contracting the disease and losing his own life. A subscription is now being raised for the purpose of commemorating this act of self-devotion. It would be a pity if this case led to the idea becoming prevalent that there is any necessity for sucking the tube in cases of tracheotomy; it might lead to the sacrifice of many valuable lives. A medical man is hardly justified in risking his own life to save that of a child, who, from the nature of such a case, is most likely dying from a most fatal disease. In this country it has been estimated that when diphtheria attacks the larynx in children under twelve years of age it is almost invariably fatal without tracheotomy, and that tracheotomy only saves five in every hundred. I have been present at over sixty operations of tracheotomy, and performed nearly half that number and have never seen the necessity arise for sucking the tube. I do not know the particular incidents of the case which cost Dr. Rabbeth his life, and therefore write with some diffidence on this subject for fear that it should be thought that I wish to detract in any way from the merit of his act of devotion to what he considered his duty. But as a rule a tube should never be in the trachea if likely to be blocked by membranes, and if in, and it should become blocked, it should be immediately removed and dilators introduced into the opening in the trachea. The tube should not be introduced at the time of the operation until all the membrane it is possible to remove has been removed. The wound should be kept open by dilators and feathers passed into the trachea and twisted round. The membrane is thus easily withdrawn, or so loosened and detached that it is expelled by the reflex cough excited. No case should be left after an operation

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(until all membrane has disappeared) without a Trousseau's dilator near at hand. At the Children's Hospital it is made a rule to leave a pair of dilators on the board of the cot with every case of tracheotomy, and on innumerable occasions they have been required. These remarks, although they may tend to reduce the number of medical heroes, may also, I hope, prevent the unnecessary sacrifice of the lives of many brave and good medical men.

E. V. A.

VIENNA LETTER.

VIENNA, November 24, 1884.

Editor Courier:—Thinking that perhaps some of your readers, who may intend coming to Europe to study, may not be able readily to obtain such information about Vienna as would be desirable, I send you a few items that I hope will prove of interest to them. Of the city itself much could be written, for it is very beautiful and a most delightful place of residence. Every one who has been here carries away pleasant recollections of the "Kaiser Stadt" and wishes to return. But its professional advantages are what I wish here to speak of. In this regard Vienna can claim, justly I think, to offer to the student the finest opportunities for clinical study in the world. Although the new university building, formally opened by the Emperor a few weeks ago, is a magnificent structure and affords room for all the departments of the University, the medical branch has been allowed logically to maintain its headquarters in the "General Hospital." This is an immense building capable of accommodating some 3,000 patients; it is under the control of the Government and is admirably conducted.

Just behind the Hospital is the Polyclinic, independent both as regards the hospital and the government and devoted entirely to clinical teaching. For the visiting student, the clinics naturally possess more interest than didactic lectures, and he will be amazed at their extent. To give an idea of the number and variety of cases they afford, I will mention the clinic of Professor Joseph Gruber. I choose his because, being specially interested in ear work, I am more familiar with these than the others. At this clinic alone are treated between three and four thousand patients yearly; about as many as are admitted to our City Hospital in the same time. During the last course of six weeks, over 450 new

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cases were presented to the class. It is but fair to say that this is a very large clinic, probably the largest ear clinic in the world. Prof. Politzer has also a large clinic, but it cannot be compared with Gruber's. The "specialism" of medicine is here fully developed and each specialty offers to its students advantages in its line as exceptional as the above. Such men as Billroth, Albert, Schroetter, Stoerk, Braun, Spaeth, Kaposi, Neumann, Bamberger, Nothnagel, Stellwag and others could command clinics anywhere, much more in a city where the system of clinical teaching is carried to such an extent as in Vienna. So much for its advantages as a place for study.

Another interesting point for consideration is the expense of living here. Vienna is not a cheap place to live in. It is perhaps the most expensive of continental capitals, certainly very much more expensive than the small university towns of Germany.

The fees for instruction however are not high,and a man can live well here on $2,000. a year. This includes all fees and allows a surplus for extras, such as operas, theaters, cafés and the like. This is a liberal estimate and can easily be reduced to $1,200, perhaps even a little lower but I think not much.

Now as to the language. Most of the professors speak a little English—a very little—but they all lecture in German, so that some acquaintance with this language is necessary to profit by the courses. If one is not familiar with German, and can not study it at least a little before coming, a good plan is to come here in the spring and devote the summer to acquiring the necessary familiarity with the language and to "learning the ropes." Such a preparation will tell to great advantage in the winter's work. Vienna has many peculiar customs of her own—but my letter is growing too long. So, only remarking that St. Louis is better represented here than any other American city, and that Dr. Maughs and wife are here for a short visit on their way south, I will stop.

Yours, J. B. SHAPLEIGH, M. D.

THE PHARMACIST.—The Chicago College of Pharmacy resumed the control of this journal January 1, 1885, and the editorial management is in the hands of Prof. Oscar Oldberg, recently of St. Louis, whose ability as a writer on pharmacy and kindred topics is well known.

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DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

NEW YORK POLYCLINIC.—ANTISEPTIC SURGERY.—HYDROCHLORATE OF COCAINE.—ALEXANDER'S OPERATION.

NEW YORK, N. Y., December 25, 1884.

Editor Courier:—As I have little or nothing to do on this Christmas day, I have decided to write you, hoping that I may be able to say something that may benefit some of your numerous readers.

I have been here about one month, the better part of which time I have put in in attendance upon the Polyclinic at Nos. 214 and 216 East Thirty-fourth Street.

I made the rounds of the schools when I first came. Found large classes at Bellevue, the University and the College of Physicians and Surgeons. But, after a pretty thorough examination, I decided that the Polyclinic was the school which afforded the best advantages for a practitioner. It has lots of young blood in it, not too young but young enough to be alive and vigorous. It has John A. Wyeth and Alfred G. Gerster (the latter the brother of the sweet singer), on Surgery; W. Gill, Wylie, Mundé, Hunter and Grandin on Gynecology; Ripley and Millbank on Diseases of Children; V. P. Gibney on Orthopedic Surgery and in short an able corps of teachers throughout. Everything is taught by clinical instruction. There is never a lecture without the patient, and generally there is more material than can be used. It is a most wonderful school for the practitioner.

Here you see antiseptic surgery done to perfection. Both Wyeth and Gerster are strongly devoted to this modern practice. I thought, before coming here, that we knew something about it in my part of the country, but I was mistaken. Wherever operations are to be performed there are large jars on a shelf containing solutions of one part of bichloride of mercury to one thousand, two thousand

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and three thousand of water with a crane and tubes leading directly over the table so that they may be used for irrigation at any time. The instruments are all immersed in a 5 per cent. solution of carbolic acid. Every man who is to have anything to do with the operation must first be sublimated by washing his hands in a one to five hundred solution, thoroughly brush the nails, and all wear ducking coats washed in a solution of chloride of zinc.

I saw Wyeth amputate at the junction of middle and lower third of the femur for a suppurative synovitis of the knee joint, with ostitis of a considerable portion of the upper end of the tibia and lower end of the femur, under the antiseptic method. The femoral artery was tied with a fiddle string and all the smaller blood vessels with smaller catgut. The wound was united by first using the saddlers' stitch with strong catgut so as to hold the flaps together, and then the edges were united by the continuous stitch or whipping.

The wound was frequently irrigated during the operation, with the two thousand solution. After the operation was finished the stump was dressed with iodoform gauze, then with the sublimatic gauze over that, then oiled silk, then antiseptic cotton, then the sublimate bandage, and last and over all a bandage filled with powdered glue wrung out of hot water. This last hardens and keeps the dressings in place. Prof. Wyeth remarked after the operation: "I do not expect to touch this patient for three weeks. Then I will remove these dressings and shall expect to have nothing to do but knock off the unabsorbed catgut, that composing the outside of the stitch, with my finger end."

This is most wonderful to the country practitioner, who has been in the habit of seeing all of the wounds made or seen by him suppurate for weeks and weeks.

I have seen both Wyeth and Gerster remove the entire female breast, going back with the axilla and removing the axillary glands and fat, in which they exposed the axillary vein and artery for three inches. Both of these cases were treated and dressed the same as the stump above described and neither one had a rise of temperature above 99½°. Only one of them has been seen since the operation. In her case the dressing was removed on the twelfth day and there was not as much suppuration as you would ordinarily get from a felon at the first lancing, and the wound was as sweet and clean as if it had just been dressed.

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I have seen Wylie and Hunter and Mundé enter the abdominal cavity for ovariotomy, Tait's operation (Battey's operation with the Fallopian tubes included) and in Alexander's operation (by Mundé), all under the strictest antiseptic rules—and all of the women get along about as well as if nothing had happened to them. If a man don't wish to be converted to antisepsis he had better stay away from New York.

The operation done by Mundé and known as Alexander's operation consists in entering the abdominal cavity, over each internal ring, and catching and drawing the round ligament into the inguinal canal and securing it there by stitches. This is done to correct retroversions where the uterus is freely movable and where there is no paro or perimetritis and no adhesions. It is like shortening the guy ropes on one side of a leaning smoke stack. The two operations done by Prof. Mundé were the first ever done in this country, I believe. Alexander of Liverpool has done the operation twenty-two times with excellent results in most of the cases.

But to return to antisepsis, I wish to say that one must, or ought, to see how it is done and then see the surprising results in order to properly appreciate it.

Next to antisepsis the hydrochlorate of cocaine is just now exciting the minds of the New York doctors the most.

If my readers do not remember, I will say that its local anesthetic properties were accidentally discovered a year or so ago by a student in Vienna. He was using the stuff for something and accidentally got a drop in his eye. He discovered that he soon lost all sensation of feeling in that eye,which lasted for some time. He reported to his professor, and the professor tried it in some eye operation. Prof. D. B. St. John Roosa, of New York, wrote home concerning the matter while visiting Vienna last summer, and all at once everybody in New York, was on tiptoe to use the new anesthetic which anesthetizes, but does not intoxicate. A great number of trials have been made with varying success. They began here by using a solution of two grains to the ounce. Now most all are using it as strong as four grains I believe. It has been used in operations for strabismus—when the solution was first injected beneath the conjunctiva with a hypodermic syringe. The result was quite satisfactory. It has been used in the removal of superficial tumors, in extracting teeth and in many ways.

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I saw Prof. Mundé inject it into the cervix uteri just before performing trachelorrhaphy, Emmett's operation.

Everything went well in the first part of the operation, but when he put the needles into deep the tissues of the cervix it gave pain. This was hardly a fair test however, for it was intended to inject it fifteen minutes before the operation and this was done; but another operation which was being done, was prolonged beyond what had been anticipated.

Prof. Wylie reported on yesterday morning that he had just circumcised a boy while the penis was under the influence of this drug. He used a four grain solution in which he bathed the prepuce, and he also injected it between the glans and prepuce.

Giving it a few minutes to absorb he then performed the operation. He stated that the boy talked and laughed all of the time during the operation. It has also been used in the extraction of cataract, and in iridectomy, with good results.

The drug is made here by one man only, a druggist named Foucar of this city. When I came here it was worth $5,000 per pound, but has now fallen to $1,500. I had thought of bringing home only a pound, but since it has fallen so, I suppose I may as well bring two!

I would like to warn your readers to make up only what they intend using in the operation on hand, as it degenerates on standing. Truly and sincerely, WILLIS P. KING.

DR. W. F. HATCH, one of the oldest practitioners of medicine in California died November 16, 1884, aged 66. He was born in Charlottesville, Va., March 2, 1822, graduated at Union College, Schenectady, N. Y., at the age of 19, and at the Medical Department of University of New York in 1844. He practised for some years in Wisconsin, but removed to California in 1851. He had various important positions in connection with the educational interests of the community and was an active member of the board of health of the city of Sacremento and of the state board of health. He was professor of the Theory and Practice of Medicine in the Medical Department of the University of California for several years, and for four years before his death was Professsor of Hygiene in the same institution.

He was a member of the American Medical Association and of the American Public Health Association.

He was one greatly beloved, and his death is deeply mourned by a wide circle of friends and associates.

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ST. LOUIS
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ORIGINAL ARTICLES.

CEREBRAL LOCALIZATION.

BY PHILIP ZENNER, A. M., M. D., CINCINNATI, O. *Lecturer on Diseases of the Nervous System in the Medical College of Ohio.*

[*An Address delivered before the Cincinnati Medical Society.*]

THERE are various methods of research which assist us to a knowledge of the functions of the brain. One is the study of comparative anatomy. This has taught us that the cerebral cortex is the seat of conscious intelligence, for the higher the animal and the higher the race of men the more largely is the cortex of the hemispheres developed. The same observations also indicate that the highest powers of intellect reside chiefly in the frontal lobes, but this conclusion must be accepted with more reserve than the former. Wernicke has made some observations on monkeys which should also be mentioned here, that is, that the size of the occipital lobes is in proportion to the size of the optic tracts, and we will learn also by other means that the occipital lobes are centres for vision.

Another method of research is the observation of the morphology of the different parts. Thus we find in the cortex of the central convolutions, those now termed motor convolutions, a prevalence of large cells, like those found in the anterior

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gray matter of the cord and in the nuclei of the motor cranial nerves, a type of cell believed to have motor functions, while in the occipital lobes, which have sensory functions, we find chiefly small cells like those in the posterior part of cord, and therefore having probably sensory functions.

A third method of research is a study of the anatomy of the parts. We know the functions of the anterior and posterior spinal roots of the cranial nerves; and if we could trace them to their origin or final termination in the brain we would then know the functions of the parts from which they arise or in which they terminate. There are great difficulties in arriving at such a knowledge by simple anatomical studies, but these are very much assisted by the observations of the course of degenerated nerve strands, by Gudden's method of studying the effects of mutilation of different parts in early life, and by the study of development as taught us by Flechsig.

But the means which have contributed most largely to our present knowledge of the functions of the brain are the experiments upon animals and the observation of the effects of localized disease in man.

You all know the experiments and the conclusions of Flourens, a physiologist of the earlier part of this century. His dicta, that the cerebral cortex is the centre for the perceptions and the will, and that every part of the hemispheres has exactly the same functions, were accepted by the medical world for nearly half a century. Broca's observations that certain disturbances of speech, which he termed aphemic, were caused by lesions of the posterior part of the third frontal convolutions and his conclusion that this part is the seat of articulate speech, was the first blow to the doctrines formerly held. But Trousseau's negative observations, that is, his publication of cases of aphasia, where there was no disease of the frontal convolutions, threw doubt upon this subject. It was only later, after we had learned to distinguish the different kinds of aphasia, that it became apparent that Broca was altogether correct, that the kind of disturbance of speech of which he spoke was due to disease of the third frontal convolution.

We come next to the anatomical investigations of Meynert.

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These were the first to give us a correct idea of the relations and functions of different parts of the brain. His conclusions have been largely corroborated, and on account of their intrinsic worth and historical value deserve notice here. Meynert took as an axiom that the cerebral cortex was the seat of conscious intelligence. He believes therefore that all impressions made upon the surface of the body which are perceived must be conveyed by fibres to the cortex, and that all voluntary impulses must be conveyed by the same means from the cortex to the periphery. The crura cerebri contain all these centripetal and centrifugal fibres excepting those in the olfactory and optic nerves. The crus cerebri is divided into two parts, the crusta and tegmentum. The crusta is directly connected with the corpus striatum, the tegmentum with the corpora quadrigemina and optic thalamus. Meynert observed that the crusta and tegmentum are not always equally developed. Only in adult men is the crusta as large as the tegmentum. In infancy the latter is much larger, and it is also much larger in lower animals, being the larger the lower the scale of development. The difference indicated that the two subserved different functions. Meynert also observed that the corpus striatum and the cerebral hemispheres were proportioned in size to the crusta, and as lesions of the corpus striatum in man caused motor paralysis, he concludes that the crusta conveyed motor impulses, that the hemispheres, the corpora striata and crusta were the centres for and means of conduction of voluntary impulses. On the other hand, as the tegmentum and its ganglia, the corpora quadrigemina and optic thalami, are larger in infancy and in the lower animals; and as, according to Schiff's experiments, animals in which all but these parts of the brain have been removed, are still able to perform all movements, he concluded that these ganglia are centres of reflex actions. These ganglia are also connected through nerve fibres with the cortex of the hemispheres, and Meynert supposes that the latter acquires knowledge how to perform voluntary acts after observing, as it were, how the lower ganglia perform them in a reflex way. Meynert further concluded from observations of the course of the fibres that the anterior parts of the hemisphere possess motor, the posterior parts sensory functions.

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In 1870 Fritsch and Hitzig published the reports of their experiments on animals, which mark a new epoch in the history of cerebral physiology. They found that irritation of the surface of the brain with a weak current of electricity, would, if applied at certain parts, produce definite movements. Thus, if applied to a given part of the centre for the arm the latter would be pronated, to another part, prehensile movements would follow, etc. It was objected that these movements were due to the current reaching the deeper seated ganglia. But not only were very weak currents applied, but the resulting movements were only observed when the irritation was applied to one part, and did not ensue if applied somewhere else, even though much nearer the basal ganglia. Farther, these results were not obtained in very young animals when the communication between cortex and underlying ganglia was not fully established. These results were further corroborated by other experiments in which given parts of the brain were removed or destroyed, thus causing a loss of their functions. In addition to names already mentioned, those of Ferrier, Schiff, Munk and Goltz have figured highest in connection with these experiments.

Since these experiments were made many observations have been made on men, which confirm their results. Hughlings Jackson first observed that limited or general convulsions were often produced by disease in the cortex of the so-called motor convolutions, and since his observations many cases have been reported in which limited disease of different parts of the brain have been attended by symptoms which indicated the functions of the destroyed parts.

With this brief historical review we will pass immediately to a statement of the knowledge we now possess of the functions of the different convolutions.

The sense of smell has been localized by Munk in the gyri hippocampi. These are at the base of the brain and can therefore not be reached by the experimenter. But in one of the dogs operated upon by Munk both of these gyri were destroyed by an extending inflammation, and the sense of smell was entirely lost. It is needless to state that a single instance

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of this kind is not sufficient to fully establish the above claim. We may mention the additional fact that the root of the olfactory nerve terminates in this gyrus. There are no facts in human pathology which throw light upon this subject.

The centre for hearing is in the temporal lobes. Munk's experiments on dogs indicate that it is in the lower part of the temporal lobe. Ferrier, who experimented on monkeys, whose brains are much more like the human, localized it in the first temporal convolution. In man we have, firstly, the fact that destruction of the left first temporal convolution produces word deafness, a condition in which the subject cannot understand spoken words, though he has not lost, at least not entirely, the sense of hearing. Secondly, several cases have been reported in which destruction of the temporal lobes was accompanied by deafness.

The sense of vision is located in the occipital lobes. This fact has been gained from the study of the anatomical relations, from experiments on animals and from the careful study of the results of disease in man. It is as fully established as any fact in cerebral physiology. In man each occipital lobe is in relation with the corresponding half of both retinæ. For that reason destruction of one occipital lobe produces a condition termed hemiopia: the patient does not see objects in one half of the field of vision. If the right occipital lobe be destroyed the right half of both retinæ is paralyzed and objects in the left half of the field of vision are not seen. Therefore destruction of the right occipital lobe produces left hemiopia.

But that part to which most attention has been paid and in which most interest has been taken is the motor area of the brain's surface, and we must now inquire what are its exact functions.

Already at the time of their first publication Fritsch and Hitzig had observed that removal of this area did not produce complete paralysis. When the centre for an anterior extremity was removed the animal was still able to use the member in walking, but certain peculiarities were observed. The foot would often slip in walking, sometimes the side instead of the flat of the foot would be brought to the ground. If the leg

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were pushed out of its proper position by the experimenter the animal would not correct the position. But the leg was also weaker than before. Fritz and Hitzig supposed that the animals had no knowledge of the condition of the limb, and that thus the chief disturbance could be explained.

Nothnagel attributed these motor phenomena to loss of muscular sense. Schiff discovered that there was also impaired sensibility in the affected limbs, and attributed the motor disturbances to this cause.

Munk has made the most careful study of these motor disturbances. He observed after removal of the centre of a member the following changes. There was either entire loss or impairment of tactile sensibility of the affected parts. There was also loss of muscular sense. The animal did not feel when the limb was touched. He seemed to have no knowledge of any passive movement of the part, would allow it to be placed in any position without resistance and without attempting to correct the position. There was besides a loss of voluntary control. The animal had been taught to lift the foot at the word of his master. He would still do so with the sound limb, but not with the other. If the animal were so placed that the affected limb hung over the edge of table unsupported while he rested upon the other three limbs he seemed not to have the power to directly place the foot on the table, though often a change of position, by means of the other three limbs, had again brought his foot on the table; he could use it in walking, for the latter act is largely automatic. So in these animals there was loss of tactile sensation, of muscular sense and of voluntary control of the limb, and also some actual weakness.

In cases of monoplegia in man due to a lesion of a part of the central convolution somewhat similar effects are observed. We do not usually have complete paralysis. If the centre for the arm is affected the coarse movements at the shoulder and elbow are usually unimpaired, the disturbance is principally in the hand and of a character like that usually termed ataxic. There are also usually sensory disturbances. In a case presented to the society a few weeks ago I had occasion to demonstrate a condition of this kind. There was a le-

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sion of the cortical area for the arm, the result of a gun-shot wound of the skull, and in this patient it was observed that the muscular weakness was only in the hand, and that there was less of actual weakness than of ataxia. The patient could not button his coat, etc. He stated that it was because the feeling in his hand was blunted, and a careful examination revealed that there was both impairment of tactile sensibility and of muscular sense limited to the affected hand.

The centre for the muscles of face and tongue is in the inferior part of the central convolution; that for the arm in the central part, that for the leg in the superior part of the same convolution. Experimental results in animals and pathological observations in man both indicate that these are the centres for the described functions.

Munk has in addition mapped out two centres in the brains of monkeys of which we have as yet no knowledge from observations on man. The first is the centre for the muscles and general sensibility of the eye in the angular gyrus. In man paralysis of ocular muscles does not appear to follow cortical lesions. Perhaps it is because the muscles of both eyes are equally under the control of each hemisphere. Munk also found the centre for the muscles of the trunk in the frontal lobes. The frontal lobes in man are very much larger than in monkeys, and if Munk's observations be correct, doubtless only part of the frontal lobes in man are devoted to the muscles of the trunk, what part it is futile to guess.

Lastly, we must speak of the location of the centre for speech. This has been determined by the study of the disturbances of speech, termed aphasia. There are various kinds of aphasia. The two most important types are those termed motor and sensory aphasia. In a pure type of the first there is mere inability to speak, while what is spoken can be understood, and the words are present in the mind. This inability to speak is not due to paralysis of the peripheral apparatus for articulation; but to injury of a central apparatus which directly arouses and controls the coordinated movements which result in articulate speech.

In sensory aphasia the articulation of words is not affected,

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but the patient can not understand spoken words, while the hearing remains unimpaired. Here that part of the central apparatus has been injured which is in some way related to the auditory nerves.

There are also other types of aphasia. In some wrong words are constantly brought into use; in others words are forgotten, though they can be pronounced if prompted by another person, etc., etc. In such forms of aphasia certain connecting bonds between the sensory and motor centres have been broken. The ability to read and write may also be impaired. But we can not dwell upon these points in this brief summary.

In cases of pure motor aphasia the lesion is in the posterior part of the left (in right-handed persons) third frontal convolution. In cases of pure sensory aphasia the lesion is in the left first temporal convolution. The lesions causing the intermediate forms of aphasia cannot be distinctly localized.

OBSERVATIONS ON THE ACTION OF COCAINE.[1]

BY GEO. H. GOODE, M. D., CINCINNATI.

FOR the past few months medical journals have published in almost every issue observations on the actions of the muriate of cocaine. The testimonials of most observers coincide in regard to many of its actions, which are looked upon as established. But still the work of observation goes on, and those who are employing this valuable agent in surgery in many cases in which it is used under varying circumstances will note points to which attention has not before been called. Indeed, so varied have the experiences of the numerous operators been with this anesthetic, that it has been a cause of considerable discussion in regard to the existence of certain conditions re-

1. These observations were made under the supervision of Dr. Robt. Sattler in the Eye and Ear Clinic of the Miami Medical College and in Dr. Sattler's private practice.

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ported. Although this subject may seem a little trite, I will give a short résumé of observations made in the practice of Dr. Robt. Sattler of Cincinnati.

1. Its anesthetic effect has been noted in every case, and so great is its value as such that the removal of a foreign body frem the cornea is no longer attempted without it.

2. Dilatation of the pupil has been observed in most cases; but in quite a number of cases with dark irides the pupil remained normal or was but slightly dilated.

3. The sclerotic in the majority of instances has become almost blanched. In but a few cases has it caused any congestion. In regard to this last point the question might be asked: Does the cocaine, if such is a result, have any deleterious influence in operations performed under such circumstances? I will state that in two cataract cases operated upon, in which subconjunctival congestion occurred, very violent reaction followed. In one case kerato-iritis occurred and in the other capsulitis ensued. Whether the reactions in these cases were simple coincidences is a very important question. For upon its establishment rests the safety of many operations and the future of many patients.

4. The accommodation, which has been said by some to be affected in the majority of cases, was altered in but a few cases. Two or three points which have not heretofore been published may be added, viz., a fixed condition of the eyes during the operation; a creaky sensation of the cornea on section; a clonic, rigid condition of the iris. These points were especially marked in two cases of cataract extraction. In both of these cases more than the usual number of instillations of a four per cent. solution were made, orders having been given to make instillations, commencing at a certain time, at intervals of ten minutes until the operator arrived. Had he arrived at the time appointed but three instillations would have been made, whereas arriving about twenty minutes late, they numbered five. In both of these cases so fixed were the eyes that it might have been possible to make the operations without fixation. The cornea also seemed dry and caused a creaking sensation. The patient in one case stated that he felt no pain "only a rub-

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bing or drawing sensation." So marked was the rigid condition of the iris that it offered a perceptible resistance to the grasp of the forceps.

ALCOHOL: ITS RELATIONS TO CRIME AND INSANITY.[1]

BY B. F. HART, M. D., BROWNSVILLE, MO.

ALCOHOL is that principle in all liquors, whether spirituous, vinous or malt which when taken into the system in sufficient quantity, produces intoxication.

From its earliest mention in the Bible in connection with Noah and Lot, down to the present time, its excessive use has ever been associated with shame, disgrace and wickedness.

The intimate and almost inseparable relation of alcohol to crime—a relation well nigh equal to cause and effect—is so self-evident to every person of observation and much commingling with mankind, that an argument to demonstrate its truth is hardly necessary. Yet, as the business on this occasion is to investigate the subject in a truthful and impartial manner, to hew to the line, let the chips fly where they may, much evidence will be adduced showing beyond a doubt its true relation. Facts are drawn from various portions of the civilized world, and are given and vouched for by men of the highest standing in all departments of life, whose opportunities have not only been good, but whose relation to the subject has been such as to carry great weight with their statements. Among those who shall testify will be numbered emperors, governors, congressmen, judges from the highest to the lowest, mayors of cities, justices of police, county prison inspectors, chiefs of police, prosecuting

1. This paper was presented to the Missouri State Medical Association as a committee report, but, through a misunderstanding on the part of the Publication Committee, did not appear in the published Transactions. Its publication is now authorized by the committee as having been "Read before the Missouri State Medical Association."—[ED. COURIER.

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attorneys, chaplains and wardens of penitentiaries, jailers, officers of public charities and houses of refuge, commission reports to legislatures, reports of grand juries, many of the ablest scientists and medical men, the voice of prohibition and the daily criminal record brought to light by the newspaper press all over the land. Information drawn from such varied sources and all pointing in the same direction, in fact agreeing substantially that about eighty per cent. of crime is due directly or indirectly to the use of intoxicants, can scarcely fail, it is believed, to carry conviction to those who are seeking to know the truth and nothing but the truth. The relation of alcohol to crime will first be noted in foreign countries.

Chief Justice Hale of England declared in 1670 that "from twenty years' opportunity of judging in his official capacity, not less than four-fifths of crime is the result of excessive drinking."

More than two hundred years have rolled away since this declaration was enunciated; and yet the true relation of alcohol to crime remains unchanged. The Chaplain of Preston House, England, said in 1855, "that more than 15,000 prisoners attribute their ruin to drink; and that a fair investigation will show nine-tenths of all crimes due to the same cause." Lord Chief Baron Kelly says: "Two-thirds of the crimes which come before the courts of law are occasioned chiefly by intemperance." Frederick Hill, Inspector of Prisons in England, and a person of great authority on such matters, says: "I am within the truth, when I state as the result of extensive and minute inquiry, that in four cases out of five of offences, intoxicants have been one of the causes." Sir Wm. Gull, M. D., testified before the House of Lords that "he hardly knew any more potent cause of disease, leaving out of view the fact that it is a frequent source of crime of all descriptions."

In 1877 Lord Chief Justice Coleridge used the expression, "If we could make England sober, we might shut up nine-tenths of our jails." Hon. F. R. Falkner, recorder of Dublin, said in 1882, "I have been a whole week trying cases of outrage and violence in the city, every one of which originated in public houses. I marked the evidence in every case and ev-

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ery one of them began in a public house." Dr. Carpenter, with two thousand English physicians, signed the following: "A very large proportion of human misery, including poverty, disease and crime, is induced by alcoholic drinks as beverages." Mr. Laing reports of Sweden: "Three-fourths of crime committed in this country is due to the use of liquor."

While acting as Supreme Judge in Rome, Lord Acton stated, "that a large proportion of crime could be traced to the use of wine." Switzerland makes about the same report.

These facts in reference to these wine-bibbing countries show that wine is about as bad in its tendencies as spirituous liquors. With regard to crime in Baden and Bavaria, each of the governors of state prisons says that it was "wine in one country, and beer in the other, which filled their jails." Dickens said of France that "the wine-shops are the colleges and chapels of the poor and breed the men of crime and revolution."

Secretary M. Desjardines, in his report to the French Government in 1872 on drunkenness, says, "it has resulted in a menace to society at large, and the temporary humiliation of the country;" referring to the French defeat of two years before.

The Emperor of Germany in a recent address to the Reichstag declared, "that the serious increase of crimes and misdemeanors committed in a state of drunkenness had manifested the need of supplementing the existing penal code with a new statute.". The attention of the authorities and people in that country is now being called "to evidences of race deterioration caused by the free use of beer."

In Canada "nine-tenths of the male prisoners and nineteen-twentieths of the females are sent to jail by intoxicating drinks. Of 25,000 sent to the Canada jails, in four years, 22,000 owe their incarceration to drinking habits." So reports the magistrate, Rowland Burr, to the Canadian Parliament.

Were the statistics at hand, other countries would doubtless exhibit the same ratio. Russia to-day stands first on the roll of mortality of European countries, and second only in importance as a spirit drinking people. These two facts connected are quite significant.

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How does the relation stand in our own country? Away back in colonial times Congress called the attention of the state legislatures to the terrible evils growing out of the use of liquor, and implored them to stop its manufacture. As statistical information has been much neglected in the western and southern states, chief reliance for facts must be placed on the older states in the union.

The New York Prison Association report says: "Of all the proximate causes of crime the use of intoxicating liquor is the most prolific and the most deadly; that of the sixty or seventy thousand men, women and children passing through these institutions every year, the jail officials declare seven-eighths are there from drink." The police arrests for five years in Philadelphia show 79 per cent. were made necessary by use of intoxicants. In the report of the State Charities of Pennsylvania are found these words: "We have spoken of intemperance as a fruitful source of pauperism and crime; and it is doubtless the proximate cause of nine-tenths of the idleness, brutality and vice which afflict society."

Gov. Dix said to the Legislature of New York in 1873, "Scarcely a day passes without witnessing a brutal, and in many instances a fatal, assault upon the persons of unoffending individuals, usually in drinking saloons." By report of the National Prison Congress for 1873, "there were 20 houses of correction in the United States receiving 29,183 inmates, nine-tenths of whom in the opinion of the wardens were there in consequence of drink." "From 80 to 90 per cent. of our criminals connect their courses of crime with intemperance." So says A. S. Fisk in the report of the United States Commissioner of Education. Of three thousand five hundred and fourteen committals to the Deer Island House of Industry, Boston, 88 per cent. were for drunkenness and 93 per cent. for all causes connected with intemperance.

The sheriff of Albany, New York, said, "eight-tenths of the prisoners of Albany jail were there from liquor." The warden of New York City Prison put it at three-fourths, and Mr. Clark, jailer of Buffalo, said nine-tenths.

The mayor of Baltimore said "of the ten thousand arrests in

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this city for the year 1873 eight thousand resulted directly or indirectly from drinking." The board of police justices of New York City for 1874 report that they are "fully satisfied that intoxication is the one great leading cause which renders the existence of our police courts necessary." Dr. E. Harris of the same state after thorough investigation by visits to prisons gives it as his opinion "that 85 per cent. of all convicts afford evidence that they indulged in the use of alcoholic drinks."

Prosecuting attorneys have about as good a chance as any one else to witness the true inwardness of this hydra-headed monster. Hon. J. C. Clark, while acting in that capacity in Boston, says: "I formed the opinion long ago, which is confirmed by every hour of experience since, that ninety-nine one-hundredths of the crime in the commonwealth is produced by liquor." Hon. Geo. P. Sanger made about the same declaration drawn from experiences in the same district; and J. Wilder May states: "According to my official observation drinking is directly responsible for three-fourths of the crime brought to the cognizance of the county, and indirectly for about three-quarters of the other crimes."

Inspectors of the Massachusetts State Prison for 1868 report, "about four-fifths of the number committed the crimes for which they were sentenced while under the influence of drink." The Board of State Charities of Massachusetts for 1867 put it at "80 per cent.;" that of 1868 at "more than 80 per cent:;" and that of 1869 at "not less than four-fifths."

Chief Justice Noah Davis of New York said: "Of all the causes of crime intemperance stands out the unapproachable chief." Justice Denman in his charge to the grand jury in 1882 said: "The great bulk, I might say the whole, of the offenses of violence in the land come directly from excess in drink."

Hon. W. J. Mullin, prison agent of Philadelphia, stated to the National Prison Congress held at Baltimore in 1872, that of "the half million persons who had been in the county prisons of Philadelphia in the past twenty years, over two hundred thousand were charged with drunkenness; and that in nearly every case of murder or attempt at murder the parties were intoxicated." The grand jury of Philadelphia for 1874 state

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they had acted upon 471 bills; a large proportion of the cases before them were for assault and battery, and in every instance these were the direct result of a free and improper use of intoxicating drinks. Indeed this liquor traffic is the terrible source of all crime.

By official report the information comes that five hundred and sixty males and nine thousand and six females were sent to the work house on Blackwell's Island for drunkenness oftener than five times in three years. Twenty-nine females and one male were there as often as one hundred times. A bad showing this for the females of Gotham.

Rhode Island state prison has 90 per cent. of drinkers as estimated by the warden; sixty-five out of ninety-one in the state prison of New Hampshire acknowledge to intemperance.

Connecticut shows 90 per cent. of drinkers, on inquiry made to the inmates of prisons, of all kinds in the state.

On coming west the investigation of the subject gives about the same report. In Cook County, Illinois, Judges Tuley and Moran each report about 75 per cent. The chaplain of the Illinois Penitentiary at Joliet in 1883 makes the statement that, "all crimes committed against person are connected directly with drink." The chaplain of the Southern Illinois penitentiary said in 1882: "As the Mississippi River sweeps its drift into the Gulf so certainly does the saloon sweep its drift into the penitentiary." It may be remarked right here, that an investigation of those sent to state prisons is hardly a fair test, since a large proportion of that class belong to the light fingered gentry, whose minds must be kept unclouded and comparatively free from alcohol in order to ply their vocation successfully without detection; whereas the larger proportion of crimes caused by alcohol are only sent to town and county prisons; indeed a vast number, nearly equal to one-half perhaps, are compromised without cognizance of the courts. The report of the Superintendent of the poor for Cane County, Illinois, shows nine-tenths of the expenditures due to inebriety. Of one hundred and seventeen murders committed in Illinois year before last, statistics show one hundred and six caused by drink in either slayer or slain.

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After thorough investigation the St. Louis grand jury in 1881 report "80 per cent. of crimes caused by the use of alcoholic liquors." This brings the matter very near home, and an impartial showing, it is believed, will make a like return from every liquor imbibing community in the state of Missouri. Ex-Gov. B. Gratz Brown of Missouri declares that, "both as a remote and as a proximate cause the liquor traffic becomes the prolific parent of nearly all the crime which afflicts the state; and that ninety-nine out of every one hundred cases of divorce which occur in our courts rest on the same ground."

In answer to direct inquiries made by myself in the last three months the chief of police of New York City states, "I am satisfied that a large percentage of crime is caused by the use of alcoholic drinks." The chief of police of Cincinnati estimates in his answer that, "nine-tenths of the police work of the city is due to liquor; 40 per cent. of arrests last year were for intoxication; and of the balance charged with every offense in the calendar of crime, it is safe to say four-fifths were under the influence of drink when arrested." Is it any matter of wonderment that the late terrible out-break of lawlessness and crime should have occurred in that liquor-oppressed city? The chief of police of New Orleans writes, "my opinion, founded on five years' experience on the police service, is that two-thirds and even more of the arrests made are caused by drink."

R. W. Goode, Attorney of St. Louis, writes: "Judge Noonan of this city agrees with me in the opinion that alcoholism is the parent of many crimes, and the foster parent of many more." The chief of police of Kansas City answers: "The peace disturbers are most generally under the influence of liquor when arrested." The warden, J.P. Willis, of Missouri State Penitentiary writes: "One-half of the convicts are intemperate, and more than one-half attribute their imprisonment to the use of liquors." From Judge Ryland of Lexington Mo., the the answer comes: "Three-fourths of all cases of assaults and homicides have their origin in alcoholic drinks, and at least one-half of all other crimes." This seems to state the case most fairly. and put it in its proper light as to different kinds of crime, Criminal Judge Henry P. White of Kansas City replies in an-

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swer to me: "Of those who are for the first time convicted upon charges involving dishonesty 80 per cent. were drunk when they offended. And those who are charged with violence to the person are nearly always intoxicated at the time of perpetrating the offense. Out of a multitude of cases which have come under my observation during the past ten years wherein the charge was murder, manslaughter or intent to kill, I can call to mind only five in which the accused was not to some extent inebriated when the offense was committed."

My own observation and personal contact with the ways of wickedness confirm but too strongly the truthfulness of these reports. It was my privilege thirty years ago to hear Judge Moore of Mt. Sterling, Ky., an eminent prosecutor and judge, charge the grand jury "that 95 per cent. of crime was occasioned by the use of intoxicants." Judges Miller and Breck of Richmond, Ky., both of whom had been prosecuting attorneys, stated publicly in my presence in 1877 that "their insight into the business in an official way warranted them in saying 95 per cent. of crime was connected with intoxicating drinks." To my personal knowledge there were forty-six cases of homicide in Madison County Ky., in 1877, and in every instance alcohol was the prime mover in the deed. While the temperance movement held sway in Richmond, the county seat of that county, in the winter of 1877-8 for six weeks, there was not a solitary case brought before Police Judge Williams, as he told me afterward, and as I know from personal knowledge, yet previous to that time there was hardly a day that one or more cases were not up for settlement. This shows what a potent factor liquor is in peace disturbances. Only last Saturday, in my town of Brownsville, there were a half-dozen fights, and several parties cut, which personal knowledge bids me say would not have happened in any case if liquor had not incited thereto.

Official reports could be greatly multiplied, and figures and tables presented without number touching this phase of the question, did time and space permit. As a straw showing how the wind blows, it is a significant fact, and one not to be overlooked, that when a crime is committed, the detective and police force always go to the saloons to find or hear of their man

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Again, a close scrutiny of the crime columns of the daily press all over the land is sufficient evidence that alcohol is generally in the same boat.

It will not be out of place, but just to the point and without any touch of politics about it, to show what figure prohibition, either voluntary or by law, cuts in reference to this matter. Many extensive land-proprietors in the British dominions prohibit the use of spirits on their premises. From such districts eleven chief constables and superintendents of police say: "No public house, no beer shop— no intemperance and no crime." Lord Hamilton, Member of Parliament, stated publicly: "In my district, where formerly there was much strife and constant use for police, now under prohibition no policeman is in the district, and the magistrates testify to great absence of crime." Superintendent of police for Morpeth reports in 1874, "a case of drunkenness or disorder in a village without a public house is a very rare occurrence." Mr. Garnett proprietor of Low Moon, says of a population of eleven hundred: "We have no beer-shops, dram-shops nor pawn-shops; neither have we stocks, nor jail, nor lock-up. Our people sleep with open doors, free from molestation; and have the lowest death-rate in the kingdom." Marquis of Lorne, ruler over the Canadas, said: "Prohibition has made a race of sober people in Manitoba, and greatly lessened crime."

Ask the experience in the United States and hear the response. In Potter County Pa., under prohibition, Hon. John S. Mann says: "Our jail is without inmates except the sheriff for more than half the time; when liquor was sold, there were always more or less prisoners in jail." Of forty-one counties in that state the Commissioners of Public Charities, declare: "The effect of prohibitory laws is strikingly shown by the comparatively vacant apartments in the jails." In Maryland, official report shows, "fifteen prisoners in jail in Talbott County in 1874; in 1875 there were nine, and in 1876 only one; all the result of prohibition. The decrease in prisoners in various counties in the state adopting local option is the strongest evidence of favorable results." In New York City when saloons were open on eight Sundays one thousand and seventy-eight arrests were

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made; whereas, when they were closed for the same length of time on that day, there were only five hundred and twenty-three arrests, and in a large proportion of these cases the liquor was obtained outside the city. So say official reports.

The Mayor of Bangor, Maine, said, in 1872, "The records of the police court show only about one-fifth the number of cases before it with saloons closed as compared with last year, when they were open." In Vermont, Gov. Peck says: "The law has been salutary in diminishing drunkenness, disorders and crimes generally." For Connecticut, Gov. Dutton said in his message: "There is scarcely an open grog-shop in the state, and the jails are fast becoming tenantless." New Jersey comes to the front with her paradise, Vineland, having a population of 10,500 inhabitants, with no saloons for years, and spending annually only $75 for police, and $400 for the poor, with this additional statement: "During the entire year there has been only one indictment, and that for battery among colored people." Ten days' prohibition in Boston, Mass., shows a diminution of one-half the number of arrests. And commitments to work-houses and houses of correction show under prohibition for one year, by official statement, a diminution of one-half. The United States census tells the tale for the state of Maine thus: "When the law was not enforced, in 1860 the number of persons convicted of crime was 1,215, which was reduced in 1870, when it was enforced, to 430, or only about one-third; the pauper list being also reduced one-half. Coming west again, about the same tale is told. In two groups of thirteen counties each in Illinois, with about the same population, the test is sharply made, as follows: In the thirteen no-license counties, for the year 1882, there were forty-eight prisoners, many of whom got their liquor outside the counties; and from the thirteen counties with 293 open saloons, 801 prisoners made the fearful count. Forty-eight against 801 shows what alcohol has to do in the business, and it is an argument to which there is no offset or discount. Clay County, Ill., reports no saloons in the county, and consequently no prisoners, no murders, for the year 1882, yet it has a population of 17,000. "For twenty-five years there has been no saloon in Edwards County, Ill., and during that long time

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there has been sent only one person to the penitentiary out of a population of 8,600, and that was for crime committed while under the influence of liquor obtained in another county. From Hon. M. McVeigh, of Arkansas, we learn that "prohibition has nearly driven crime from a number of counties in the state." Judge McConnell, of Tennessee, reports that prohibition has emptied nearly all the jails in his judicial district of eight counties. Four counties in the state of Kansas give notice that their jails are empty, and Kingam County District Court dismissed its jury with the remark that not a single criminal case needed attention—all the result of abstaining from alcoholic drinks. Polk County, Ga., found about 125 true bills at each term of the court, and the jail was crowded, before prohibition; since the adoption of that measure only fifty true bills are found, and the jail is empty. The statement of the chaplain of the Kansas penitentiary to the governor shows the subject up in a strong light. The names of eight counties in the state are given; four favorable to, and four opposed to prohibition; the population of each four being about the same. For the year 1882 the counties favorable sent twelve convicts to the penitentiary, and the counties opposed sent forty-seven, or nearly four times as many, This shows but too plainly the power of alcohol to lead those who contest its strength into the paths of waywardness, ending in the final loss of liberty.

The relation of alcohol to insanity will now be considered; and in the investigation chief reliance must be placed on medical expert testimony. Lunatic asylum reports are very unreliable and unsatisfactory in the settlement of this question, for the following reasons: First—The lunatic is incapable of giving any information; the friends are disinclined to tarnish the family name, and may, indeed, not know or even suspect the true cause. Second—Census returns show that only a little over one-third of the insane are sent to asylums; and of course in an investigation of that kind two-thirds of the number would not be considered. Third.—Inheritance will probably account for more insanity than any other cause, as will be made plain on investigation, yet it evidently has not been considered to any extent, in this country at least, in asylum reports. Leaving out the question of

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inheritance, such evidence as can be brought to bear seems to place the relation of alcohol to insanity at about 25 per cent. United States Consul to France, Mr. Gifford, reported in 1882 that "the director of an important asylum in that country said the greater part of his patients—women as well as men—owed their mental condition to the use of stimulants." It has been estimated that 56 per cent. of the insane admitted to the asylums in Paris during the late war was due to intoxicants. In England Lord Shaftesbury testified that drink was the cause of one-half the admissions to the asylums. "In the Richmond Hospital, Dublin, one-half owe their madness to drink." So says Dr. McNish. Commissioners report for nine private asylums in England, 32 per cent. In Dundee asylum eight out of fifty-two are set down to drunkenness. The commissioners report for ninety-eight asylums in England and Wales, about 20 per cent. attributable to drink. The distinguished Dr. Carpenter, of England, declares that "the habitual use of alcoholic liquors to excess becomes one of the most frequent and potent causes of insanity, and greatly aggravates other causes." The Glasgow asylum, as reported by Dr. Hutchinson, gives 25 per cent. The statistics on the subject in the United States have not been accessible to any great extent, and indeed they would settle nothing definitely any way, as our officials appear to have not been alive to the importance of the question in all its bearings. The Citizens' Association of Pennsylvania report one-third of the insane as due to intemperance; also, one-third of the feeble-minded, and two-thirds of the friendless children in houses of refuge from the same cause. Dr. Nathan Allen of Massachusetts puts it at 25 per cent. Some writers estimate it at from a half to two-thirds, which perhaps is too high, at least from direct causes.

Reports for the past two or three years of the asylums at Fulton and St. Joseph in this state show the surprisingly small per cent. of only five. This is very remarkable indeed, when contrasted with reports from other countries, and in the face of the fact that a very large number of the most eminent medical men in all lands to-day are impressed with the belief that a very large percentage of insanity comes from drink. True, a large pro-

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portion of these, perhaps, arrive at this conclusion from convictions on the doctrine of heredity from drunken progenitors—a doctrine that deserves most serious and careful consideration, because it lies at the very foundation of the future vitality and greatness of the American people.

Even the moderate use of alcohol frames the mind to a condition, no doubt, most favorable for moral and physical causes to unbalance it entirely, and without the use of which, the predisposing causes might forever have remained dormant. In all such cases, it evidently would be right to give liquor its true relation—the exciting cause of insanity.

On the phase of heredity—the result of drink, in the production of insanity, a number of distinguished medical men will be allowed to testify. The Bible says: "The iniquities of parents are visited upon their children to the third and fourth generation." "One drunkard begets another," says Plutarch. And the same fact was recognized in the days of Aristotle, for he stated, "drunken women bring forth like unto themselves."

All nature, both vegetable and animal, proclaims the active force of the law of inheritance. This is well understood by all persons familiar with stock-breeding, and fruit and vegetable propagation. Again, it is a recognized fact that climate, association and the material which supplies nourishment has much to do in the make-up of the physical and mental constitution of man. The wonderful change thus wrought for the better in the children of foreigners in this country may be cited as an illustration. Under opposite circumstances the tendency is one of deterioration, instead of vitalized improvement. As the brain is weakened and changed to a certain extent structurally and perverted in functional action by long continued use, either moderately or immoderately, of alcohol, it is not difficult to account for abnormal manifestations in various directions the children of those addicted to its use—and hence insanity follows as a natural sequence when favored by moral and physical causes so slight as to be unable to make any impression under a different state of mental constitution.

The taint of alcoholism is like that of syphilis; there is no knowing when or how it may crop out in the offspring. Dr.

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Anstie, a distinguished English physician, says: "After extensive investigation as to the effects of drunkenness, I am satisfied that insanity to a large extent comes from drunken parentage." One of the soundest thinkers in England, Dr. Carpenter, the physiologist, says, in his prize essay on alcohol: "We would expect to find the offspring of habitual drunkards share with those of lunatics in the predisposition to insanity." Again, "That the acquired perversion of the normal nutrition of the nervous system which it has induced, manifests itself sometimes in congenital idiocy, and sometimes in a predisposition to insanity, which requires but a very slight exciting cause to develop it." Dr. B. W. Richardson, of London, a learned physician and one of the ablest and most practical scientists of the day says in his Researches on Alcohol: "I cannot define it better indeed than to say that it is an agent as potent for evil, as it is helpless for good. It begins by destroying, it ends in destruction; and it implants organic changes which progress independently of its presence even in those who are not born." A strong tendency or predisposition to idiocy, insanity, intemperance, and even pauperism, is inherited by the children of inebriates; and this fact is so well established and attested by the ablest investigators that it cannot with any show of reason be longer called in question. And the further fact, that these tendencies to deterioration seem to follow no particular order, but may be convertible conditions under slight influences, rests on an equally solid foundation.

M. Lunier, of France, concludes, "that 50 per cent. of the parents of idiots and weak minded children are notorious drunkards; and further, that the majority of children born of parents when drunk, or who are constitutional drunkards, are weak in some way or other." Multiplied instances could be given to substantiate this fact. Dr. Mitchell testified before a committee of Parliament, "that the children of habitual drunkards were in a larger proportion idiotic than other children; they are also in a larger proportion liable to the ordinary form of acquired insanity or that insanity which comes on later in life." Dr. W. A. F. Brown, physician to the Lunatic Asylum at Dumfries, testifies, "that the drunkard entails mental disease on his fam-

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ily. His daughters are nervous and hysterical; his sons are weak, wayward, eccentric and sink insane under the pressure of excitement, of some unforeseen exigency, or the ordinary calls of duty." Drs. Hutcheson and Darwin give expression to similar views. In this country Dr. Ray is good authority on insanity. His opinion is formulated thus: "Another potent agency in vitiating the brain is habitual intemperance; and the effect is far oftener witnessed in the child than in the parent, its cerebral disorders taking the form of intemperance, idiocy, insanity, vicious habits, impulses to crime, or some minor mental obliquities." Dr. A. G. Howe reported to the Massachusetts Legislature in 1848, "that not one-fourth of the idiots in the state could be traced to temperate parents." This assertion can be made good, and even improved upon by any amount of statistical tables on idiocy, which have accumulated since that day. Now, if it can be established as a fact—and it undoubtedly can—that three-fourths or more of idiocy is due to drink, how much greater may not be the proportion of those whose minds have been affected in a less degree, is a question that rises, and will not down. Morel, of France, attributes to this and other poisonous agencies, "the true degeneracies of the present time in that country, whether in influence direct, or by transmission of hereditary power in the child." Sir Henry Thompson of English fame declares: "There is no single habit in this country which so much tends to deteriorate the qualities of the race." Dr. N. Allen, of Massachusetts, in an article on Alcohol as a Cause of Vitiation of Stock, after large opportunities for investigation, "thinks it questionable whether the moderate use of alcohol is not worse than drunkenness, as far as it affects the number and condition of the offspring; and that the children of parents whose systems were tainted by the poison start in life under great disadvantage." The American Medical Association resolved in 1874: "That alcohol as a beverage is productive of a large amount of mental and physical disease; and that it entails diseased appetites and enfeebled constitutions upon offspring."

One reason why the showing of asylums in this country is less than in England is doubtless attributable to the seeming fact that less attention has been given here to the subject of heredity;

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and also less consideration given to the influence of moderate drink even, as a potential exciter to causes of a moral and physical nature. When these bearings shall have been properly investigated and truly weighed, there is every reason to believe that the ratio will be found even higher in the United States than in England. The evidence is overwhelming; the witnesses unimpeachable, and the very best that could possibly have been introduced to establish the relation of alcohol to crime and insanity. The case is made up impartially and submitted for your consideration.

Since, however, this question of alcoholism is of such paramount and momentous importance to the well-being of the human race the wide world over, it may not be amiss or unprofitable, though a little outside of the investigation, to take a glimpse at attending evils, so nearly allied as to be able to elucidate many of its hidden features, and to bring into the fore-ground the monstrous evil of intemperance, in all its hideousness and destructiveness.

It may suffice to state here, as comporting with statistical facts drawn from every civilized intemperate community, that not less than 75 per cent. of idiocy can be traced to alcohol; an average of about 90 per cent. of pauperism; and nearly all the vagrancy that afflicts the land is due, either directly, indirectly, or by inheritance, to the same cause. What an appalling fact to contemplate!

And what makes it more startling is the further fact that these terrible evils—evils which weigh the nation down as a mighty incubus—are rapidly on the increase, as shown by the United States census for 1880. See the fearful rate of increase in the brief period of thirty years! The census returns for 1850 give 15,610 insane; that of 1880 puts it at 91,997—six times as many in 30 years. In 1850 there were 15,787 idiots, and in 1880, 76,895.

About the same ratio holds good as to other dependant and profligate classes. This is out of all proportion to the growth of population. The census for 1880 shows for this country, 91,997 insane, 76,895 idiots, 33,878 deaf-mutes, 48,928 blind, 70,595 prisoners, and 88,665 paupers. With the present ratio of

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increase, is it possible for any government, however elastic or full of vitality, long to bear up under such a fearful burden? If to the list above given, the out-door poor and those of charitable institutions be added, there will be a round total of half a million of people, who earn nothing themselves, and have to be maintained at an enormous cost to others. One fiftieth of the whole population of the United States to be housed and provided for, is a declaration true, but quite a stunner! Can such things happen without a cause? Nay, verily. Cause and effect always follow in close connection; and from all the showing on this question, it is evidently reduced to a certainty, that alcohol is responsible for a large proportion of this trouble; since from its known effect of producing molecular change in the tissues of the body, and perverting its various functions, such a conclusion is most easily reached by heredity. But this is only a part of the evils flowing from King Alcohol—a king that reigns supreme, and rules with an iron rod.

It is estimated that 20,000 divorces have occurred in New England States in the past 20 years in consequence of drink, and it is known to the observation of every intelligent person that nearly all such cases the country over are due to that cause.

The same may be said of suicides, which seem not to lag, but are keeping pace with other evil tendencies. The great majority of accidents happening on the seas, the highways, by-ways, and thoroughfares are caused directly by drink; and so well assured are they of this fact that many railroad managers have declared their intention, and put it in practice, to employ no longer intemperate men.

This picture is sad enough, surely, to say nothing of the heartaches of mothers, wives and children, the thousands of lives brought prematurely to disgraceful graves, and the untold millions of money squandereed in this unhallowed business.

This is a question that comes nearly home to the medical profession; since it may have much to do in *stemming* the onward tide of this besom of destruction on the one hand, or in giving it increased acceleration on the other. Many learned and able physicians in England, Canada and the United States,

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who have the well-being of their fellowmen at heart, have published their views on the detrimental use of alcohol, from a purely scientific stand-point. The practical question in this connection for every physician to consider and well weigh is, whether it is not his duty under the teaching of science, to strike at the very root of this foul plague spot—whether it is not best not only for humanity at large, but for the afflicted as well, to prescribe it as a medicine even with *great* discretion, and as *seldom* as possible; since, from being thus prescribed, thousands upon thousands have acquired the habit, which has finally led to their downfall and ultimate ruin.

ANTHRAX AND ITS TREATMENT BY IODOFORM.

BY H. H. VINKE, M. D., ST. LOUIS.

A CARBUNCLE is an inflammatory, indurated, painful, circumscribed swelling, of a livid red color, accompanied by considerable constitutional disturbance, and terminating in gangrene of the skin and subcutaneous cellular tissue. Text books, so far as I have access to them, give but a very meagre account of the causes of this affection. All that appears to be known in regard to its etiology is, that old age is predisposing, as it is scarcely ever seen in young persons; that it is often associated with gout and diabetes, and that an exhausted and vitiated vitality is invariably concomitant with this disease. All these may, and no doubt do, act as predisposing causes, it is my conviction, however, that the time is not distant, when some of our eminent microscopists will demonstrate, that a living organism is the true etiological factor in the production of this affection. Although it is most frequently found on the back of neck, on the back, and on the buttock, it is sometimes met with on other places, as for instance on the face, where it is termed "malignant pustule."

A carbuncle is preceded by general malaise, and commences as a rule, with a small pimple, surrounded by an inflamed, brawny and indurated zone, accompanied by severe local pain,

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and increasing in size, till at times an enormous surface is involved. I saw once a patient having a carbuncle on the back of his neck, extending down the back, in whom a large, irregular, raw surface of 6 inches by about 10 inches was left when the disorganizing action of the same had exhausted itself. When the anthrax assumes a large size, a number of blisters may be seen upon the swelling, containing an acrid fluid, and indicative of gangrenous destruction of subjacent tissues. The small pimple in the centre breaks down first, and the surrounding mass appears to be a collection of cells, lying in close contact and containing pus; a condition of affairs which has been very properly described as resembling a honey comb. Upon pressure small drops of pus will exude from these cells. The skin over the entire inflamed area assumes a sloughy condition, coming away in strips suspended in large quantities of offensive pus. By slow degrees all the sloughs are separated and discharged, leaving a large granulating surface. From three to six weeks are required to accomplish this. While this process of destruction is going on, patient suffers excruciating pains, the parts are stiff and the slightest motion impossible, he often being unable to lie either on the side or back, and is compelled to sit up. All this renders him very restless and wakeful, and together with the enormous amount of pus which is discharged, proves very exhausting. Besides this there is always considerable inflammatory fever and disorders of digestion.

Furuncles and carbuncles are frequently described together, as if they bore great resemblance, whereas in reality they are vastly different. As is well known the common boil is simply a simple, circumscribed cavity containing pus, accompanied by no constitutional disturbance of any importance, and is readily cured by a free incision, which will permit the escape of pus. These two affections therefore, cannot be mistaken. Some times an anthrax proves fatal, and when it does so, it is either by exhaustion or pyemia; it may, however, destroy life by setting up a meningitis, or as has been reported in one case of carbuncle occupying the abdomen, by exciting fatal peritonitis.

Treatment.—About 75 years ago this affection was treated in the following manner: The actual cautery was applied directly

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to the carbuncles, in order to disorganize it and circumscribe the limits of the same. The constitutional treatment consisted of bleeding and purgatives. I have been unable to find any statistics of cases treated in this heroic, not to say brutal, manner, but the mortality in bad cases must certainly have been very great. To-day carbuncles are treated by hot poultices and free incisions. These incisions are generally made in a crucial manner over the swelling; commencing at a point where the healthy skin meets with the inflamed, they are continued to a corresponding point on the opposite side. These free incisions are made to give exit to pus, to relieve the painful tension of the parts, and with a view of arresting the progress of the disease; herein, however, the knife proves as futile as the hot iron. After the sloughs are separated, which may be hastened by cutting them away with a pair of scissors, a plaster of some stimulating ointment, as the carbolized vaseline or the Basilicon ointment, etc., is generally applied to the ulcer, and secured by adhesive strips; these latter at the same time serve to support the edges of the wound. Another method of treating them is by inserting into the swelling at various points small pieces of caustic potash, to hasten the disorganizing action of this disease. It has been stated that blisters in the earlier stages may abort them and cause their resolution; I have, however devised no benefit from them.

Opiates, iron, quinine, tonics, stimulants, fresh air, nutritious diet constitute the constitutional treatment.

This brings me to the object of this paper; the consideration of the treatment of carbuncles by iodoform typically applied. I saw this method of treatment suggested several months ago in a German medical journal, and have since had occasion to try it in two aggravated cases. There are several reasons why this remedy recommends itself in these cases:

1. Because it is a powerful antiseptic.
2. On account of its anodyne action.
3. On account of the property it possesses of stimulating granulations and hasten repair.

For theoretical reasons, therefore, this drug is indicated, and its usefulness, as far as my experience goes, is borne out in

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practice. After trying a great variety of different dressings, as solutions of salicylic acid, carbolic acid, etc., this has proven the most soothing and pleasant to the patient. It should be employed in the following manner:

The entire inflamed surface and ulcer should be covered with a heavy layer of iodoform, also absorbent cotton and rubber paper may be applied over this, and the entire secured by bandage. This dressing should remain undisturbed for several days, or till the accumulation of pus necessitates a change. Objections on account of its penetrating and offensive odor might be urged against the use of this drug; this, however, can almost be completely corrected by the addition of 20 to 30 drops of eucalyptol to ʒi of iodoform.

Attention of late has been called to the toxic action of iodoform. It is claimed that such symptoms as the following may ensue upon the use of the same:

1. Elevation of temperature. 2. Depression of spirits, headache, disorders of the digestive tract, etc. 3. Alarming increase in the pulse rate. 4. Collapse, ending in death.

Besides these, general symptoms resembling those of cerebral meningitis have been observed. (Shede of Hamburg, *Centralblatt f. Chirurgie*, 1882, and Kuester, Berlin *Klin. Wochenschrift*, 1882). It has been suggested that these symptoms, which are so rarely met with, are to be ascribed to a peculiar idiosyncrasy towards iodoform (Schede), or what is perhaps more probable, upon diseased conditions of the excretory organs; especially the kidneys *Brit. Med. Jour.* 1882). Dr. J. H. Mundy of Vienna in the *Berlin Klin. Woch.*, states that the cases of iodoform intoxication were the result of putting too much of it in the wound, as for instance the enormous amount of ʒiiss to ʒx at one time, in patients who were anemic, or either very old or very young, and that in most of the fatal cases reported by Miculicz, Koenig, Hoeftman and others, a post-mortem examination revealed organic lesions, which might have been the cause of death (*London Medical Record*, 1882.) Although I have used iodoform in large quantities in dressing small and large wounds, I have never met with a single case of poisoning.

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Some years ago I was summoned to see a boy who had his right thigh caught between a turn-table. There was a large wound on the inner side of the thigh. The surgeon in charge, being a great admirer of eucalyptus, poured a large quantity of the fluid extract of eucalyptus into the fresh wound, and then brought the edges of the same together with sutures. The eucalyptus acting here as a foreign body, prevented the healing of the wound, and the result, of course was necrosis of the flap, followed by pyemia and ending in death. I simply cite this to show how a harmless drug injudiciously employed, may be followed by ill effects; how a remedy, beneficial upon an open surface, may be potent with evil when put between flaps or within an enclosed cavity.

I agree, therefore, with those surgeons who deny altogether the possibility that iodoform used upon open and especially granulating surfaces will ever produce constitutional disturbance.

MORTALITY IN ST. LOUIS.—During the year 1884 there were 7,887 deaths, the annual death-rate on an estimated population of 400,000 was 19. 7.

The deaths from various zymotic diseases were as follows:

Small-pox,	4
Measles,	33
Scarlatina,	161
Diphtheria,	425
Croup,	116
Whooping Cough,	32
Typhoid Fever,	166
Malarial Fever,	261
Puerperal Fever,	54
Diarrheal Diseases (under five years)	582
" " other ages	130
Cerebro Spinal Fever,	43
Other Zymotic Diseases,	331
Total Deaths from Zymotic Diseases,	2,338

There were 845 deaths from phthisis, 501 from pneumonia, 258 from bronchitis.

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CASES FROM PRACTICE.

PREGNANCY COMPLICATED WITH CANCER OF VULVA AND VAGINA.

BY JACOB GEIGER, M. D., ST. JOSEPH, MO.

About the middle of November, 1884, I was summoned by telegraph to Fremont Co., Iowa. Upon arriving at the residence of the patient, I was met by Drs. Whiting, Hesler and Smith, of Shenandoah, Drs. Robinson and Adams, of Farragut, and Dr. E. F. Cowger, of Riverton, Iowa. I was apprised by the attending physicians that the case to which I was summoned was one of unusual and obscure nature. The patient, Mrs. S., a farmer's wife, aged 37, and the mother of four children, had enjoyed good health until the commencement of the present trouble. The patient informed me that she became pregnant about eleven months previous and experienced nothing unusual until about the end of the fifth month. At this time she noticed a watery discharge and occasionally a little blood escaping from the vagina, accompanied with lancinating pains through the pelvic organs and back, but experiencing nothing resembling labor pains. These symptoms became aggravated, but nothing was done towards ascertaining the cause until about the ninth month when the hemorrhages became alarmingly frequent and copious. By this time her general health began to fail, and an enlargement of the inguinal glands was noticed. A few weeks later a physician was called in, and making an examination, found the vagina filled with a hard nodulated mass which bled upon the slightest touch. The cervix and os uteri could not be found by digital examination. The physician diagnosed cancer of the vagina, also confirming the belief that she was pregnant. But supposing the time was not up he advised her to wait for further developments. A week or so later another physician was called; he also diagnosed the case as cancer of the vagina. By this time the patient and her friends became anxious

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about her condition. She was greatly emaciated, feverish, with an occasional chill and copious perspiration, while the vaginal discharge was increasing in quantity and was exceedingly offensive. The perilous condition of the patient was apparent to all, and a consultation was determined upon.

Upon entering the door of the house I at once recognized the odor of cancer, and proceeding to interrogate the patient, I received the history as given above.

Up to this time, about the eleventh month according to her estimate and the appearance of the child after removal, she had not had a single labor pain. After gleaning a complete history of the case, I made an examination and discovered the following conditions:

The left labium majus and the vagina, as far as could be reached, presented a mass of cancer, hard and nodulated and at some points soft, ulcerated and easily broken down. By placing my finger in the median line of the pelvic outlet, and exerting some force I met with a firm and hard resistance, which proved to be the child's denuded cranium. Satisfied with the examination, a consultation was held with the physicians present, and I gave it as my opinion that the woman must inevitably die. Septicemia already existed and would soon destroy her life unless the decomposing child was removed; and if the child was removed she was liable to die of post partum hemorrhage; and lastly the cancer would in a short time claim its victim. This opinion coincided with that of the other physicians, and the husband of the lady was informed of our decision. After conferring with his wife he stated that his wife as well as himself had decided to take the chance afforded by the operation and insisted that we proceed to remove the child. With the hope of exciting uterine contraction, we administered a teaspoonful of fluid extract of ergot every thirty minutes for four hours, but with no effect, for not the slightest pain was produced.

Being confident that delivery must be purely instrumental, ether was administered and the operation begun.

I at once proceeded to cut away and break down the cancerous growth, and soon exposed the child's head, and, strange to say, with but a very trivial loss of blood. I attempted to apply the forceps, but was unable to introduce the second blade. The scalp over the vertex had sloughed off, leaving the cranial bones almost loose, and

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they were removed separately through the two and one-half inch opening, made through the cancerous mass. I succeeded in passing a blunt hook up into the child's left axilla, and with one blade of the forceps in the posterior curve of the pelvis, applied traction and soon brought the remaining portion of the scalp and the neck into view. But on attempting to extract them we found our progress completely arrested. Upon examining the parts, to our utter astonishment we found that the occipital portion of the child's scalp and neck, for a distance of about two and one-half by four inches, was completely and firmly adherent to the uterus. The adhesions were so firm that they could not be broken up with the finger, but were severed with the knife and scissors. After diligent work for an hour and a half, I was enabled, by producing traction with my finger in the axilla, to deliver the child. The infant, without the head, weighed ten pounds, and was a well developed male child, but was much decomposed and had evidently been dead for several weeks.

Instantly after the removal of the child I carried my hand into the cavity of the uterus and removed a very much decomposed and offensive placenta, but could find no trace of the membranes. The uterine walls were nodulated and hard and showed no disposition to contract. Its cavity soon filled with blood, and injections of hot water, kneading and pressure upon the abdomen and every other means for the arrest of the hemorrhage were resorted to, but to no avail, for the woman died in forty minutes.

The removal of the uterus by abdominal section was considered in consultation but was deemed impracticable by reason of the exhaustion and septic condition of the patient.

OVERWORK.—Unquestionably there is a degree of eager, ceaseless absorption in exciting work, involving immense mental, moral and physical exertion, which is capable of breaking down the strongest and best constitution. But unless my own experience is altogether exceptional, such instances are rare, and the vast majority of cases met with are those in which an amount of work and excitement entirely consistent with the maintenance of good health, if the laws of health were duly observed, is rendered destructive by reckless disregard of these laws.—*Dr. Pepper's Address before the Med. and Chir. Fac. of Med.* 1884.

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EDITORIAL.

HYDROCHLORATE OF COCAINE.

In accordance with the anticipation expressed in our recent note on this new local anesthetic, further tests of its merits demonstrate that it is a most valuable addition to the resources not only of the laryngologist and the oculist, but also of the gynecologist and surgeon.

Dr. Geo. J. Engelmann cites in the *The Weekly Medical Review* a number of cases illustrating its value in uterine examination and treatment, rendering easy and painless the use of the speculum and other manipulations that in the case of sensitive organizations are distressing and painful.

Dr. F. N. Otis, in the *N. Y. Med. Journal*, December 6, records a number of cases of genito-urinary surgery, passing catheters into a very sensitive urethra, dividing strictures with the urethrotome etc., all done without any suffering, as the result of local applications of the hydrochlorate of cocaine to the urethral mucous membrane. He has found it equally valuable in the examination of diseased conditions of the anus and rectum.

Dr. J. F. Croston states in the *Boston Med. and Surg. Journal* that he has used it successfully by hypodermic injection of a four per cent. solution in a case of epithelioma of the right cheek. Four minims were injected on either side and above the growth, and a few minims were rubbed over the growth. Immediately after the third injection the operation began. The first incisions he compared to a pin scratch, the second incision was not felt at all and the operation was almost a painless one.

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Dr. W. Murrell, (*British Medical Journal* December 13, 1884) the celebrated English therapeutist, has found it efficient as a local application in cases of supra-orbital neuralgia. He has used a 20 per cent. solution in oil of cloves.

Dr. Morell Mackenzie (*Ibid*) finds it serviceable not only in the removal of nasal polypi but especially in cases of laryngeal phthisis in which there is great odynophagia, due to swelling of the epiglottis. Patients who could swallow only with the greatest pain have been enabled to take food comfortably in a few minutes after painting the epiglottis with a solution of the cocaine. Dr. J. M. DaCosta (*Medical News*, December 13), has found good results in these cases of ulcer at the back of the throat causing dysphagia, but he says it must be used in a strength of eight to twelve grains per ounce in order to give satisfaction. In tubercular laryngitis he finds it much better than local applications, of morphia.

Dr. DaCosta has not found it very valuable in cases of facial neuralgia, though in one case where the pain extended into the jaws the application of the four per cent. solution gave speedy relief. Dr. Da Costa has also studied the hypodermic use of the drug, being assisted therein by Dr. Woodbury and by Dr. Ecroyd, resident physician in Pennsylvania Hospital.

No decided effects were observed from injections of less than eight minims of a four per cent. solution, or one third of a grain of the salt. A hypodermic injection into the superficial layers occasioned anesthesia of a limited area. Deep injections caused no local anesthesia. In neither case were abscesses produced.

So far as systemic effect is concerned, there is slight transitory reduction of sensation; temperature is slightly elevated for several hours following the injection. The pulse may be a little accelerated or retarded, but it always becomes fuller and stronger. The pupils are dilated and vision is slightly impaired or uncertain.

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The result of Dr. DaCosta's observations would indicate that the value of this agent is limited to its local anesthetic effect and that we may not expect any very decided advantage from its general action.

INCONTINENCE OF URINE IN CHILDREN.

Dr. S. S. Adams divides cases of this sort into three classes. Patients of the first-class suffer from a constant dribbling night and day. These cases are rare and are usually associated with some serious pathological state. In the only two cases of this class which he has met vesical calculus was found in each case.

In the second class the incontinence is intermittent and occurs by day as well as by night. The urine is retained for a time, but when the desire to urinate comes it is imperative, and before the child reaches a convenient place the sphincter relaxes and the child cannot control the flow. This is the most common form with girls, and is generally due to vulvitis or urethritis caused by irritation from ascarides in the vagina.

The third class includes the more common cases of both sexes, who, during profound sleep, generally about midnight, urinate in bed. Patients of this class generally dream of urinating. Dr. Adams thinks that the vesical incontinence of childhood is analogous to seminal emissions from the adult male, in each case the discharge being the result of a conservative process of nature to relieve irritation.

In some cases the incontinence depends upon phimosis, and is cured by circumcision. When due to vesical calculus, of course the removal of the foreign body is imperative.

While chloral has been highly recommended by some, Dr. Adams regards it as dangerous and uncertain. The bromides rank first in the treatment of cases due to exalted nervous condition and should then be given in large doses at bed-time. Belladonna he

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regards as the remedy *par excellence* for cases associated with tonic vesical spasm. It should be given at bed-time in large doses, to be increased a drop at a dose until either relief is attained or physiological effects are produced. Children tolerate relatively larger doses of belladonna than adults.

Strychnia would be indicated if there were relaxation of the sphincter vesicæ, or paresis of the muscular walls of the bladder.

Attention must be paid to general condition, diet and hygiene if success is to be attained.

"ANTISEPTIC TREATMENT OF WOUNDS BY DRY AND INFREQUENT DRESSINGS.

Such is the heading of an editorial in Number XIX of the *London Lancet*, reviewing a clinical lecture with the same title recently delivered by Dr. Shepherd, of Montreal. Dr. S. insists upon a system of dry and infrequent dressings of wounds,and relates his own success with this method. A similar method in aural surgery was published and urged in this journal several years back, which has been largely adopted in this country with pronounced success. The reasonableness of the method in uncomplicated otorrhea is self-evident and has been sufficiently explained in detail in this journal (No. 62, Report on Otology). Notwithstanding these facts the older authorities are much disinclined to give up the antiquated practice of the past. Politzer in the latest edition of his well-known text-book, while admitting (p. 480, Am. ed.), that suppuration is often increased by syringing,still prefers that method to dry cleansing, because of his doubt that the latter removes the secretion. Roosa, in his recent treatise, also repudiates dry cleansing and the regular use of powders instead of instillations. Now, there is abundant proof that in aural surgery, as in general surgery dry and, where possible, infrequent dressings (which powders only admit), are of very extensive application and in uncomplicated otorrhea often the most appropriate.

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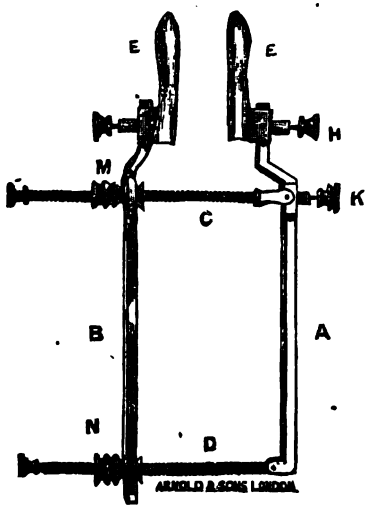
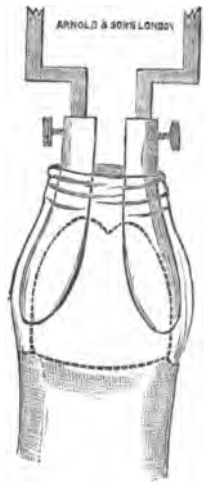
TREATMENT OF PHIMOSIS WITHOUT OPERATION.

In the November, 1884,number of *The Practitioner* is an article by W. Stephenson Richmond in which he presents an instrument for the treatment of phimosis by dilatation instead of by the cutting operation, which many patients utterly refuse to undergo. He notes the disadvantages of attempts to use dressing forceps or other improvised instruments, on account of the impossibility of introducing the blades into a close phimosis and the impossibility of exerting the pressure to advantage, even when the blades are





successfully introduced, on account of the constriction slipping up to the narrowest part of the forceps, viz., the joint, since the blades cannot be opened parallel to each other. He then lays down the following three essentials for an instrument for this purpose: viz., 1. It should be possible to introduce the blades separately. 2. They should open parallel to one another or at any angle. We fail to appreciate the necessity of opening at variable angles. 3. The blades must be of a suitable size and shape to suit the case.

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He then gives figures of an instrument which he has devised and which are here reproduced.

It consists of two rods, A B, connected together by means of two long screws C D. At one extremity they are bent inwards and fixed to the blades E E which can be removed and may be of any size and shape. The rod B is of a tuning-fork shape with the screw-nut M sliding in the groove between the two branches of the fork. Through the nut M is passed the long screw C, the end of which is received into a cup working on a hinge joint attached to the cylinder K. The screw-end may be detached from the socket by pressing a little spring. The cylinder K slides along the bar A.

The blades are passed separately down between the foreskin and glans. Very small ones are used at first. They are then attached to the rods, which are united by fixing the end of the screw-rod C into the cup-joint K. The screw-rod D, which is fixed only to the bar A by a joint, can be pulled over into the groove of B. Gradual extension can then be applied by turning the nuts M and N.

The instrument seems to us to be unnecessarily complicated. The springs marked H in the figure are awkward, and if needed at all would be made more convenient and neat by our American instrument makers. In the rod B we would have simply an oval fenestrum for the passage of C with a thumb-screw nut only on the inside. At K we would have only an oblong mortise in A with a tenon on the end of C. The arrangement for adjusting D we would leave as it is, except,of course that the slit in B is comparatively short.

ANTIPYRIN—THE NEW ANTIPYRETIC.

While no such brilliant results as those attained by the use of the hydrochlorate of cocaine are to be anticipated from the administration of antipyrin, the new antipyretic, the results already obtained in Germany are such as to indicate that this is likely to

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prove a very valuable addition to our resources for combating fevers.

In a recent paper in the *Medical News* Dr. H. C. Girard gives an account of this agent. It is a product of coal tar and was first prepared by Dr. Knorr, of Erlangen. Chemically it is a dimethyloxychinin. Occurring in commerce as a muriate, it is a grayish white crystallized powder, with a weak, tarry odor, and somewhat bitter, but supportable, acrid taste. It is easily soluble in alcohol and in less than 50 per cent. of lukewarm water, from which it deposits very slightly on cooling. Its preparation and chemical composition are a secret, and are patented in Germany.

Prof. Filehne, of Erlangen, was the first to introduce this drug into medical practice, and almost uniform testimony has been now borne to its efficacy. In high fevers it has been found to reduce the temperature without evil results. It has not, however, seemed to shorten the diseases for which it was given.

It may be administered by the mouth or rectum or hypodermically; the latter being on some accounts preferable.

Filehne advises to give in the afternoon thirty grains to be followed by hourly doses of fifteen grains till the desired reduction of temperature is obtained in cases of pronounced fever.

It is more soluble than quinine and acts efficiently in some cases where the other drug has no favorable effect, even in large doses.

The only evil effects observed have been the production of an exanthema in a few cases or slight vomiting. Collapse occurred in one case of a child two and a half years old who was suffering from typhoid fever and to whom two hourly doses of four grains each had been administered. In one or two other cases some degree of collapse has been observed, and it will be well to be cautious in its administration, especially in cases where the action of the heart is feeble.

The remedy seems to have been demonstrated to be of real value, but further clinical experience is necessary in order to determine its scope and field of usefulness.

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THE "VIVISECTORS' DIRECTORY."

The English Society for the Protection of Animals from Vivisection that secured the passage of laws practically forbidding the pursuit of physiological study in England by a parliament eager to adjourn in time for the season's shooting of grouse, etc, this society publishes a monthly devoted to the object of suppressing vivisection, as being a practice utterly barbarous, demoralizing and totally without good results. With this sufficiently dogmatic dictum for a solid support, the editress with the backing of a most influential body of officers, earls, princes, duchesses, and lesser potentates, not scientific but probably no whit less zealous on that account—demands nothing less than the instant heads of all and each concerned in experimenting upon frogs or other animals, in the alleged pursuit of physiological discovery. The December number from a psychological standpoint is full of interest. In it the earls, princes and other potentates call the attention of a horrified public to the fact that a statue of Claude Bernard, the "Prince of Vivisectors," is about to be erected in the College of France. Bernard is to be represented as standing by a table on which a dog is bound. It is darkly hinted that the day may come in future ages when this statue will be exhumed out of the ruins of Paris as damning evidence of essential barbarism.

A list is given of Englishmen "who publicly invited subscriptions to this ghastly monument." Paget, Humphrey, Sanderson, Foster are among those excommunicated. As an offset to these criminals and their Bernard, Victor Hugo, poet, is quoted. Not being known to be absorbed in biology or the practice of medicine, we can appreciate the poetical license of his remark to the effect, "Vivisection is a crime." Pasteur, again, might checkmate Victor Hugo; but we are congratulated, inasmuch as "the tide of M. Pasteur's popularity (!) would seem to have turned." Turning to Germany it is easy to annihilate Virchow, who is so inept as to declare in defense of vivisection, that it is insufficient to know life

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merely through observation, and that nature must be compelled to reveal her secrets concerning the problem of life. Did not Humboldt a long time ago say that "cruelty to animals is a vice."

America, too, comes within range of this sweeping broadside. Dr. Flint, and especially the Hopkins' University are wholesomely anathematized, for putting in practice the Baconian method.

Thus does Miss Cobbe in the December number of the Zoophilist, doom with a drop of ink all the leaders in modern physiological research. But, as the Venetian admiral said, after the great victory over the infidels at Lepanto, "every joy has its shadow;" while Miss Cobbe can boast that her society has caused it to be forbidden to Messrs. Paget, Foster and others to sacrifice frogs and rabbits to the most humane ends,she casually mentions that it is doubtful if even during the next session of parliament there will be opportunity to reintroduce "the bill to put down pigeon shooting with all its cruel accompaniments." Happily,the frogs are safe from all—but the boys. Miss Cobbe, to add to the confusion of the rebellious enemy, publishes as a special supplement in the closing number of the year, "The Vivisectors' Directory, to be kept for reference;" a rod in pickle that does justice to Miss Cobbe's resources. Among the names recorded are, of course, foremost men of the medical profession; one, Dr. Hughes Bennett, Hospital for the Paralyzed and Epileptic, London, just now is of especial note, since by his knowledge of *cerebral localization*, he has been enabled to diagnose a tumor of the brain, giving size and exact locality; the skull being trephined at the designated spot, the tumor was duly found and removed. The ancients joyfully sacrificed hecatombs in honor of the discovery of a new principle in physics, the English parliament thinks Bennett's wonderful knowledge too dearly bought at the cost of the life of a dog.

It would have been only fair to have prefaced the English list with the names of Harvey and John Hunter, who still live in their great achievements that must ever incite noble minds to press on in the same path in hope of deserving like honor and compass like success in relieving the sufferings of humanity.

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BOOK REVIEWS AND NOTICES.

ZIEMSSEN'S MOTOR POINTS OF THE HUMAN BODY. A Guide to Localized Electrization. BY HERBERT THIBBETS, M. D. Six Plates. 4to. *New York: J. H. Vail & Co.* 1884.

These plates are taken from Ziemssen's classical work on "Electricity in Medicine," which first appeared somewhere about the year 1860,and well deserve a revival on account of their accuracy. In the treatment by electricity the plates will help to localize the current to the nerves and muscles which it is intended to influence,and the knowledge of these points is of especial value in electro-diagnosis. If these points were better known the vague and mostly useless general electrization would not be practised nearly so much, and electricity could become recognized as a definite and powerful therapeutic agent. It is to be regretted that Dr. Thibbets did not see to it that the plates of Ziemssen were more accurately and carefully copied, as a number of displacements and even omissions have occurred. The point for the pronator teres is omitted. The extensor carpi ulnaris is marked too near the condyle, the flexor carpi ulnaris entirely too low. The phrenic too far from the median line. He prints flexor for extensor carpi, abductor for adductor pollicis, internus for vastus externus, etc. If the doctor had taken more trouble to investigate these points himself and consult the later authorities he could have added an additional number of points to his plates such as the supraclavicular point of Erb; the two points for the deltoid, for the pectineus, gracilis and and a number of others. Notwithstanding these little shortcomings these plates are a valuable aid, and they, or similar ones, ought to be well studied by all those who undertake to apply electricity.

H. W. H.

A MANUAL OF PSYCHOLOGICAL MEDICINE AND ALLIED NERVOUS DISEASES. BY EDWARD C. MANN, M. D. *Philadelphia: P. Blakiston, Son & Co.* 1883. 8vo. cloth, 700 pp.

This adds another volume to those now rapidly appearing on the subject of insanity. It consists of two parts, one on insanity in

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general, the other on modern nervous diseases. Added to these is an appendix containing an abstract of the laws relating to the care and custody of the insane in the various states of the union, and a résumé of the treatment of insanity. The headings of the chapters are arranged in a somewhat promiscuous style not following any system of classification. This want of system appears often in the chapters themselves as on page 544 speaking of multiple sclerosis he suddenly describes a case of locomotor ataxia. His language is somewhat verbose, sometimes smacking of affectation when he says on page 551, speaking of his cures with static electricity calling the Toepler friction machine, "Touplar machine." The doctor cites extensively from other authors and contributes a large number of interesting clinical cases. On the whole we can recommend this work to the perusal of all those who are interested in nervous diseases. The photo-type plates are excellent. The printing and binding are done in the usual good style of the publishers. H. W. H.

LECTURES ON THE PRINCIPLES OF SURGERY, Delivered at Bellevue Hospital Medical College. BY W. H. VANBUREN, M. D., LL. D. (Yalen.) Edited by LEWIS A. STIMSON, M. D. *New York. D. Appleton & Co.* 1884. 8vo.; pp. 588; cloth. (St. Louis Stationery & Book Co.; J. H. Chambers & Co.)

The book seems to be a collection of some of the more important clinical lectures delivered by Dr. Van Buren during the last ten or fifteen years of his life. The subjects treated are those of primary importance not only to surgeons but also to medical practitioners. They are such as form a very good basis for the practice of the general surgeon. The book is probably not so perfect in its presentations of some subjects as it would have been if Dr. Van Buren had prepared the lectures with a view to their publication. The preparation given to them by him was such as we might expect to be given to clinical lectures by as faithful a worker as Dr. Van Buren. It is a valuable book because it gives to us the observations and views of a talented, painstaking and successful practitioner of surgery. It is an original book, and not a compilation, as are many of the new books now given to the profession. Every page is pregnant with some practical suggestion, and the clinical descriptions are so clear and exact and so true to the varying conditions exhibited in practice that no one who has enjoyed an extensive practice can fail to appreciate the worth and the hon-

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esty of the author. The older and more experienced men of the profession will enjoy and profit by its reading and the younger ones cannot find a more faithful guide to a just and discriminating estimate of their cases. The editor has been wise in making few, if any, alterations in the manuscript of the lectures, and deserves credit for the good judgment displayed in editing the work.

H. H. M.

ELEMENTS OF PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY. By T. CRANSTOUN CHARLES, M. D. Illustrated. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 463; cloth. (St. Louis Stationery & Book Co.; J. H. Chambers & Co.)

The great importance of chemistry, as applied to the solution of physiological and pathological phenomena, has never been so thoroughly felt as at present. Joined with this feeling is the regret that so little of it is generally known to the average physician. The condensed curriculum in many of our medical schools gives but little opportunity to the student to become acquainted with the practical applications of a science which he only learns in a very rudimentary manner. The eminently practical character of chemistry, when called in aid to solve the most important problems in pathology is hardly apparent to him who halts among its fundamental principles, and many slight the opportunities offered them and neglect even ordinary laboratory practice. For this reason the appearance of the present work is to be hailed with pleasure. It enables the practitioner to supplement his college studies, and offers to the student a valuable aid in mastering processes of analysis, which will assist him in his practice to an extent but little suspected by him who supinely gives chemistry the go-by.

In lucid style and impressive manner there are treated:

I. Nutrition and foods.

II. Digestion and the secretions concerned.

III. The chemistry of the tissues, organs and remaining secretions.

IV. The excreta; the feces and urine.

Nearly 70 pages are given to the chemistry of urine and its analysis, containing not only instruction how to find morbid ingredients, but also how to construe the result of analysis in diagnosis and prognosis. Other topics are given a like elaborate attention. The book should not only be in the library, but on the table of every physician.

C.

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PROCEEDINGS OF THE NEBRASKA STATE MEDICAL SOCIETY. Sixteenht Annual Session held at Omaha, Neb., May 13–14, 1884. 8vo.; pp. 357; cloth.

This volume is well printed. The chairmen of the several sections presented reports that are very creditable as showing careful painstaking work in their preparation. The subject which elicited the most animated discussion was that of the nature and treatment of diphtheria. The longest report and the largest part of the work of the society was that of the section on surgery.

The Nebraska society have a most efficient and able secretary, Dr. A. S. von Mansfelde, and to his diligent work is due much of the interest and profit of the meetings of the society as well as the neatness and fine appearance of the printed volume of proceedings.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND, Eighty-sixth Annual Session, held at Baltimore, Md., April 1884. 8vo.; pp. 248; paper.

The reports of the meetings of this society always contain much matter of interest. We have been specially impressed in looking over this volume with the evidence of thorough organization and the care taken in the preparation of the reports of the special committees. The Maryland Faculty is one of the most efficient working societies in the country. There are not only able men in the society, but they do good work there.

TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY at its Fourteenth Annual Convention held at Denver, June, 1884. 8vo.; pp. 155.; paper.

This report is well printed and several of the papers are quite interesting. Probably the most valuable of them all is that accompanied by the series of charts prepared by the U. S. Signal Service, giving the absolute humidity and the mean cloudiness in different parts of the United States in each of the four seasons.

DOCTRINES OF THE CIRCULATION. A History of Physiological Opinion and Discovery, in Regard to the Circulation of the Blood. BY J. C. DALTON, M. D., etc. *Philadelphia: Henry C. Lea's Son & Co.* 1884. Small 8vo.; pp. 296; cloth.

This book is, as its second title indicates, a history of the various opinions that have prevailed in regard to the functions of the heart and blood vessels. Many of the terms which are familiar to us now gain new force and interest when we see how they originated and what they primarily signified.

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Such studies as this are of very great value. Prof. Dalton has brought to bear ripe scholarship in his investigations and has given us a volume that is both interesting and profitable.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Seventeenth Annual Meeting, New Grand Hotel, Catskill Mountains, July 15, 1884. Vol. III, Part 3. 8vo.; pp. 201-325; paper.

The meetings of societies of specialists are of chief interest to those practising the specialty, but several of the papers read before this association would be of equal interest to general practitioners. Perhaps the papers of the greatest general interest and importance are those of Dr. Knapp and Dr. Lippincott introducing the subject of "Opening the Mastoid Process," and Dr. Burnett's paper on "Reflex Aural Phenomena from Naso-pharyngeal Catarrh." Dr. Spencer's "Contribution to the Mechanics of Naso-pharyngeal Practice" has appeared in full in the COURIER.

THE ELEMENTS OF PHYSIOLOGICAL PHYSICS; An Outline of the Elementary Facts, Principles, and Methods of Physics and their applications in Physiology. BY J. MCGREGOR-ROBERTSON, M. A., M. B., C. M., etc. Illustrated with 219 engravings on wood. *Philadelphia: H. C. Lea's Son & Co.* 1884. 16mo.; pp. 147; cloth; $1.25. (St. Louis: J. H. Chambers & Co.)

This is another of Henry C. Lea's Son & Co's admirable "Manuals for Students of Medicine." It is the outgrowth of a course of special demonstrations to the students of the Universityof Glasgow of the principles of physico as they are applied to physiology. It is intended for a practical text-book for use in the laboratory. The first part, including 169 pages, is devoted to electricity; the second part, 18 pages, to the graphic method; the third part, 82 pages, to fluids at rest and in circulation; the fourth part, 26 pages, to pneumatics; the fifth part, 121 pages, to optics; the sixth part, 34 pages, to sound; the seventh part, 34 pages, to heat; the eighth part, 30 pages, to dynamics.

LECTURES ON THE SURGERY OF THE URINARY ORGANS, delivered in the Royal College of Surgeons, London. BY SIR HENRY THOMPSON, F. R. C. S., M. B., Lond., etc. *Philadelphia: P. Blakiston, Son & Co.* 1884. 8vo.; pp. 147; cloth; $1.25. (St. Louis: J. H. Chambers & Co.)

Sir Henry Thompson is recognized as one of the foremost authorities in matters pertaining to genito-urinary surgery and

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whatever he says or writes will be listened to or read with interest by all who have ought to do with diseases of those organs.

The six lectures in this volume treat of internal urethrotomy, systematic diagnosis of urinary disease and digital exploration of the bladder, tumors of the bladder, impaired vesical function, lithotomy and lithotrity.

These lectures will be read with interest and studied with profit.

THE PATHOLOGY, DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM AND ANUS. BY CHARLES B. KELSEY, M. D., etc. With Two Chromo-lithographs and nearly One Hundred Illustrations. *New York: William Wood & Co.* 1884. 8vo.; pp. 416; cloth. (St. Louis Stationery & Book Co; Jas.H. Chambers & Co.)

This volume is an amplification of that by the same author which formed a part of "Wood's Library of Standard Medical Authors" in 1883. The additions are mostly of a practical nature. The chapter on rectal hernia is an entirely new one.

Dr. Kelsey's opportunities of study and observation have been extensive; and he has given in this volume the results of a rich personal experience in the practice of this specialty. It is an excellent work and worthy of a wide circulation.

PRACTICAL MANUAL OF OBSTETRICS. BY DR. E. VERRIER. Fourth Edition, Enlarged and Revised. With the four "Obstetric Tables" of Professor Pajot. One hundred and five illustrations. First American Edition, with Revision and Annotations by EDWARD L. PARTRIDGE, M. D., etc. *New York: William Wood & Co.* 1884. 8vo.; pp. 395; cloth. (Wood's Library.) (St. Louis Stationery & Book Co.)

This volume is not an exhaustive treatise; but rather a résumé of practice in this department.

The work has an established reputation in France; and Dr. Partridge, in preparing it for the American reader has done the profession a service which will be appreciated by the subscribers to "Wood's Library."

THE STORY OF MY LIFE. BY J. MARION SIMS, M. D., LL. D. Edited by his son, H. MARION SIMS, M. D. *New York: D. Appleton & Co.* 12mo.; pp. 471; cloth, $1.50.

While not really a medical work,this autobiography of Dr. Sims is of interest to all medical men. It is one of the most fascinating volumes that has been laid upon our table in many a day.

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The account of his life in the South; of the struggle to establish the Woman's Hospital, in New York, and the successful issue in spite of jealousy and opposition and the brilliant successes which he gained in Europe,are very graphic. It is the well-told story of the eventful life of a great man.

MYTHS IN MEDICINE AND OLD-TIME DOCTORS. BY ALFRED C. GARRATT. M. D., etc. *New York and London: Geo. P. Putnam's Sons*, 1884. Small 8vo.; pp. 242; cloth; $1.50. St. Louis Stationery & Book Co.

This volume consists largely of selections and translations from old medical works, showing the strange theories and methods of practice prevalent in the old times. Much that is written in regard to the old alchemists is very interesting. The author regards the homeopaths of our day as the direct successors of the alchemists and the last chapter is devoted to consideration of the analogies between them.

BOOKS AND PAMPHLETS RECEIVED.

Pharmacopeia for treatment of diseases of the Larynx, Pharynx and Nasal Passages. By Geo. Morewood Lefferts, A. M., M. D. Second Edition, revised and enlarged. 1884. New York: G. P. Putnam's Sons. Small 8vo.; pp. 101; cloth; $1.00. St. Louis Stationery & Book Co.——A Hand-book of Diseases of the Eye. By Henry R. Swanzy, A. M., M. D., etc. With Illustrations. 1884. New York: D. Appleton & Co. 8vo.; pp. 437; cloth. St. Louis Stationery & Book Co.——Pyuria or Pus in the Urine. By Dr. Robert Ultzmann. Translated by permission by Dr. Walter B. Platt, F. R. C. S. 1884. New York: D. Appleton & Co. 12mo; pp. 98; cloth. St. Louis Stationery & Book Co ——Holden's Anatomy. By Luther Holden. Fifth Edition. By John Langton. With over 200 illustrations. 1885. Philadelphia: P. Blakiston, Son & Co. 8vo; pp. 886; cloth $5; sheep $6.——Text-book of Hygiene. Geo. H. Rohé, M. D. 1885. Baltimore: Thomas & Evans. 8vo.; pp. 324: cloth. J. H. Chambers & Co.——Manual of Dermatology, By A. R. Robinson, M. B., etc. 1884. New York: Bermingham & Co. 8vo.; pp. 647; cloth. ——Home Again. By Edward Borck, A. M., M. D. St. Louis: J. H. Chambers & Co.——Transactions of the Michigan State Medical Society. 1884.

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REPORTS ON PROGRESS

MEDICINE AND THERAPEUTICS.

Cocaine.—DRS. B. AND J. BETTMAN in a paper read before the Chicago Medical Society, November 10, 1884, after citing several cases in which they had used this agent give the following summary of its physiological and therapeutic effects:

1. It is a powerful local anesthetic, not penetrating in nature, rapid in its effects, which however are only temporary.
2. It is a mydriatic, the effect of which is regulated by the strength of the solution.
3. It produces paralysis of the ciliary muscle, the near point receding from the eye, distant vision is not influenced.
4. By virtue of its benumbing powers, it may be classified also as an anodyne.

New Symptom of Locomotor Ataxia.—DR. ALTHAUS calls attention to a symptom of locomotor ataxia which has not before been noticed by medical writers. In addition to the usual tests of watching the patient get up from a chair or couch, making him stand with his feet close together, or on one leg with closed eyes, making him turn around quickly, or go down stairs, in which movements certain peculiarities will be noticed betraying locomotor ataxia, he states that at an early period patients find it impossible to walk backward. Since his attention was first called to this matter he has made the test in every case that has come under his observation, and has found the symptom present in nearly all of them.—*Brit. Med. Jour.*

Intravenous Injection of Milk in Morphine Poisoning.—DR. M. H. SEARS in a paper read before the Colorado State Medical Society, at the meeting of 1884, recommended the intravenous injection of warm milk in cases of opium or morphine poisoning which seem hopeless under ordinary methods, at the same time noting the danger of attempting to antidote opium with atropia when the quantity of opium or morphine taken is unknown, as is generally the case when they have been taken with suicidal intent.

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He reports one case which terminated successfully after the injection of eight ounces of milk, the amelioration of desperate symptoms occurring immediately after the injection. In another case there was a temporary amelioration, but ultimate death after four hours work with a patient who had taken the morphine ten or twelve hours before treatment was instituted. Dr. Sears thinks that a more favorable issue might have been reached if treatment had been commenced earlier.

Pelletierine in Treatment of Tape-worm.—DR. H. WILFERT reported seven cases of the use of pelletierine. He regards it as an efficient and safe remedy. He requires his patients to fast for one day and take a dose of castor oil or a saline cathartic at evening. In the morning the pelletierine is administered and followed in a half hour with a dose of the French compound tincture of jalap as recommended by Tanret, in lieu of which Dr. Wilfert has used a mixture of two drams of fluid extract of jalap with three drams each of fluid extract of senna and simple syrup in a dose of one-half to two drams in sweetened water.

If there be nausea and vomiting he gives ice and lemon-juice. The medicine acts quickly without griping. Dizziness was noted in every case coming on in five to thirty minutes after the medicine was taken, and continuing for one to four hours, and diminishing as the cathartic action begins. Pulse was slightly increased in some cases, but no elevation of temperature was observed.

In every case the worm was expelled in about two hours.—*Cincinnati Lancet and Clinic*, Dec. 27, 1884.

SURGERY.

Extirpation of the Larynx.—T. HOLMES reports a case of extirpation of the larynx for a growth which had involved the epiglottis chiefly, and seemed firmly attached to the tissues around the larynx though the trachea was free. It was impossible to get a view of the larynx.

The patient never rallied satisfactorily and died about forty hours after the operation.

The growth was an epithelioma and affected almost the entire epiglottis and the adjacent parts of the larynx.—*Brit. Med. Jour.*, Oct. 25, 1884.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, December 18, 1884.

AXIS-TRACTION FORCEPS.

Dr. Papin.—Our young friend Dr. Endris is here who has brought with him from Europe some new instruments and more especially a new axis traction forceps, "Breuss's", a modification of Tarnier's. He has with him also a short paper which illustrates its history, and I move that Dr. Endris be asked to read the paper and show his instrument. (There being no objection, Dr. Endris was introduced and read a paper.)

Traction is made simply on the handle as in the original Tarnier, and the traction blade serves as the guide like the needle in the original Tarnier. In using this instrument there is no difficulty in exactly following the rotation and changing the position of the head in the pelvis.

Dr. Engelmann.—At what time, if at all, is there any force exercised?

Dr. Endris.—We are not to touch the guiding bars, but simply hold the handle.

Dr. Engelmann.—I am glad to see that this forceps has been presented, because I had intended to show the Simpson instrument, which is constructed in the very direction illustrated in the forceps of Breuss. The original Tarnier instrument differs from the ordinary forceps in the axis traction and in the curve. The curve has been lessened by degrees by Tarnier himself, but it has remained a marked characteristic of the instrument, even in its later forms. Most obstetricians are pleased with the axis traction principle, because axis traction has always theoretically been followed in manipulation. The principle is best expressed in Simpson's original forceps with axis traction, and that I think is the instrument which is

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most used. We have had an application of the axis traction principle to various instruments by different obstetricians, and have an expression of the same thing in Breuss's forceps.

Dr. Endris.—It is a Simpson's forceps with a modification by Breuss.

Dr. Engelmann.—We see here a modification of Simpson's forceps, that is, his own instrument with the axis traction principle, and I here show the Simpson instrument with another modification, but the very latest instruments take the shape of the original with this principle applied. The essential Tarnier modification, however, is this excessive curve; Tarnier himself has gradually lessened this in his later instruments but retained it to a certain extent in his last. I presume he will retain it, because it is his principle: others are giving it up. I have seen no great advantage from this immense curve even where the head is floating above the brim, and we are sometimes obliged to deliver under those circumstances notwithstanding the danger, and I have certainly brought living children through under those circumstances. I have not had many cases but I have not lost any under these circumstances. In one case I applied this Tarnier instrument with difficulty, upon a head floating freely above the brim and very movable, but fearing to use it on account of the curve, which was very different from the one I was accustomed to, I removed it and applied my own; the only difficulty that I found was in being obliged to lock the blades in the vulva, and that pressed them well down upon the perineum; there is the benefit of the Tarnier instrument in its original state. In the case in which I had them both applied my own instrument locked in the vulva while the Tarnier instrument locked outside of the vulva. There is no very great difference in these instruments; one locks just within the vulva and the other just without. But I say that in order to reach the head with my own instrument I was obliged to press very firmly down upon the perineum. The difficulty with these instruments which are intended for a head high up in the pelvis or above the brim, I think, is the insufficient distance of the lock; you will see the Simpson instrument locks in about the same manner as this. The fact that the lock is near the blade suggests the very difficulty which I have actually experienced. I should think that this would be a most admirable instrument, and in fact any of the forceps which we use would be admirable with the axis traction

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principle applied. Simpson deserves credit for having first applied the axis traction principle to ordinary forceps. The axis traction principle has been very universally adopted, and of course this instrument has nothing peculiar about it, except that it is the first forceps which has this principle adapted to the simple instrument without any modification. I have brought with me one of the older Tarnier's, and one of the medium Tarnier's, in order to show the difference between them. They differ in the forceps blade, but are similar in the traction appliances. Obstetricians have recognized the advantages Tarnier has showed in axis traction, but are returning to the curve of the ordinary forceps. Here I show a German instrument with such a modification, and here is an English one. Tarnier himself has lessened the curve of his blade, so that probably obstetricians the world over are now returning to the original shape of the forceps while adding axis traction.

Dr. Papin.—My friend Dr. Engelmann seems to have overlooked a little modification in this forceps of Breuss's, which is to me a neat improvement on Simpson's traction forceps. A Simpson's forceps applied in the superior strait will press against the perineum with danger of its rupture, while if we have to deliver at the superior strait this forceps exactly supplies the curve that is required, as in Hodge's old forceps. We may pull as much as we please, but we have the curve as a safeguard and the pressure is not too great upon the perineum. This is an advantage of this forceps over the Simpson traction forceps. I have delivered in the superior strait a great number of times in the last 36 years, and I have always found Hodge's forceps to answer a great deal better than Baudelocque's or any English or French modification. I have tried the Elliott's forceps, but it lacks the pelvic curve which the other forceps have. But with this instrument of Breuss we always have a guide before us; we may pull as much as we please and as long as we follow the guide we cannot go wrong. When we have the head floating above the superior strait and we must necessarily deliver immediately, if we apply our forceps in this position, using Elliott's, Tarnier's, or Simpson's, the curve is such that they press against the perineum because the traction must necessarily be downwards so as to engage the head below the symphysis pubis. Now with the Breuss' forceps we have the proper curve, while the axis traction principle is applied just as

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in the Simpson forceps, and we are not in so much danger of tearing the perineum. This forceps is much superior to the axis traction forceps of Simpson on that account; having once applied it to the head rotation can take place.

Dr. Prewitt.—I have listened with a good deal of interest to what different members of the society had to say about this forceps, and it seems to me that they are going back to an idea which looks to the inadequate qualification of the obstetrician. Now I take it the object of this axis traction is to guide the obstetrician in the direction in which he should pull. The question to my mind is whether the accomplished obstetrician needs any guide about that. A tyro might require it, but a good obstetrician hardly needs a guide to show in what position to pull, and if he is guided simply mechanically, it is certainly not a scientific method of exerting force. It is too much like those surgical instruments which aim to accomplish the objects solely by mechanical methods without any regard to the skill or dexterity of the operator; like those trocar-tipped tracheal tubes which are intended to be pushed into the trachea, such things may be perfect instruments, but are most unsurgical appliances. Now if the obstetrician needs an instrument to direct him in what direction to pull, so far as the vertical action, if I may so term it, is concerned, then he ought to have another hinge in his forceps to allow the head to rotate upon the body while he is pulling. As the head must rotate he does not always know exactly in what direction to make this rotation. A pivot might be made here that would allow the head to rotate on the blades without the necessity of knowing anything about what was going on. I take it that the very best of all obstetrical appliances, if we could have it, would be an Indian puzzle cap, that would fit upon the head, provided it could be done, with which we could make traction.

Dr. Papin.—Will you please describe the Indian puzzle cap?

Dr. Prewitt.—The Indian puzzle is a little apparatus that is stuck upon the finger and the harder we pull the tighter it becomes. It is used in dislocations of the thumbs and fingers; we slip it on, and it is impossible to get it off by pulling. Now if this could be put upon the head then the rotation both lateral and vertical, could be accomplished simply by the traction independently of the obstetrician. All that would be necessary for him to do would be simply to pull. Dr. Papin says that in these forceps the

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advantage is in its application to the head above the brim of the pelvis; I think its most prominent feature is that it seems as a guide to the obstetrician in the direction he should pull.

Dr. Papin.—Not altogether.

Dr. Ford.—It is to enable him to pull in the proper direction when he cannot otherwise do so without much difficulty and some risk.

Dr. Papin.—I agree with Dr. Engelmann that Tarnier's curve here is a very necessary thing when we are above the brim of the pelvis, and therefore in order to protect the perineum I pull in a proper direction, but as soon as I have engaged the head under the symphysis pubis I follow the handles, because this direction is not necessarily vertical any more than it is longitudinal and upwards. The necessity of this curve is to protect the perineum when we are drawing straight down however slightly. I can put sufficient force upon any head there in that direction to draw it within the brim of the pelvis if the pelvis is at all within the usual dimensions and the head is not hypertrophied beyond measure. Now I speak from experience: the force exerted is not necessarily very great, it is probably less there than at any other stage of the operation. Having once engaged the head under the symphysis pubis all I have to do is to follow the handles as they go and having made use of the curve that I have here in that direction I need no other curve.

Dr. Prewitt.—Now, Mr. President, I must confess I cannot exactly see the philosophy of Dr. Papin's suggestion. Let us suppose that this forceps is applied to the head above the brim of the pelvis. The blades are curved especially for that purpose and all you have to do is to pull downwards and forwards. The benefit of this curve is that it protects the peritoneum but it is a very different curve from that of other instruments.

Dr. Papin.—This curve will fit the head above the superior strait. Now having once fitted it, it holds steadily and the head will prevent drawing against the perineum.

Dr. S. G. Moses—It always struck me that in Tarnier's forceps the excessive curve was intended to prevent the necessity of pressing against the perineum.

Dr. Papin.—That is what I said. I think the forceps have some disadvantages; with the head above the brim. To apply it above the brim we have to press against the perineum because this

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curve is very slight, and besides this forceps is not arranged in such a way as to adapt itself to the head unless it is well up through the pelvic curve. Now having got the head in this position all we have to do is to draw in the axis of the superior strait in a perpendicular line or very nearly so. The needle of course in these instruments is intended to act as a guide but it does not assist us in drawing from the superior strait at all. Of course as the head advances in order to rotate it as we are obliged to do, we have to press severely against the perineum with any ordinary forceps, and obviation of this is the great advantage of the Tarnier forceps in my opinion over the Hodge or any other forceps that I have seen in delivery above the superior strait.

Dr. Engelmann.—This forceps of Breuss is not intended to be used above the brim. I do not see that it has any feature that would make it meritorious or give any claims to use there. In the paper that has been read it was stated,as I am also well aware from my own experience and from teaching,that the instrument is not designed for use until the head is in the brim, and fixed. This forceps has peculiar advantages in delivery and adapting itself to the head, but it makes no claims whatsoever to any advantages in applying it above the brim: it is not intended that it should be applied in this position; but it is claimed that it is superior to other instruments in what is called a high delivery, in a head impacted in the brim perhaps, but it is never intended to reach above the brim. And I think that there is another point which can be made clear in the instrument, why it will not serve above the brim at all.

Dr. G. A. Moses.—Dr. Engelmann has just remarked that this instrument was never intended to be applied above the brim; the length of the instrument proves this. The advantages claimed for the Tarnier forceps are not only axis traction, but the very large cephalic curve, and also the excessive perineal curve which permitted traction in a straight line. I have actually used the instrument but once, and that was to deliver the head above the brim. The instrument of Breuss shown here to-night, has many ingenious features and would be an effective instrument in many cases for which Tarnier especially invented his forceps. The main advantage of Breuss' forceps would seem to be that the blades can be altered somewhat from their relative parallelism on the head. It is a light instrument and a strong one. The chief objection is this hinge located where it would be soiled, and I think it would

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be very apt to retain sources of sepsis. I would dislike very much to have to use it often. The principle of traction here is exactly reversed from that in Tarnier's, in which mobility was posterior while in this it is entirely anterior.

Dr. Ford.—In Tarnier's forceps the blades remain unmoved, and in Breuss' are hinged.

Dr. S. G. Moses.—Accoucheurs have always exerted axis traction; this is an old principle dominant ever since the forceps was invented. It has always been the practice of physicians to adapt the curve of the instrument to the position of the child, and this is merely a mechanical means which helps to guide the operator.

VESICO-VAGINAL FISTULA—CALCULUS.

Dr. Prewitt.—I have here a specimen. This is a stone that I removed from a vesico-vaginal fistula some six weeks ago. The patient was sent to me from South-east Missouri with a vesico-vagnal fistula for operation. She had an exceedingly offensive discharge and her condition was very bad, and when I came to make an examination, the speculum grated against something which upon examination I found to be a stone lodged in an opening between the bladder and the vagina near the cervix. After its removal, a fistulous opening was left between the two cavities.

Dr. McPheeters.—Did it close the opening entirely?

Dr. Prewitt.—No, sir; it allowed the urine to pass constantly. The degree of inflammation about the parts was so extensive as to preclude the possibility of an operation, and I sent my patient home, directing her to use washes, etc., until the parts were in a better condition for operation. I did not notice particularly at the time the exact position which the calculus occupied; of course the urine was alkaline and was filled with mucus. I have been in doubt whether this calculus was formed secondarily or whether it was in existence at the time of labor, which had occurred probably twelve months before I saw her. It seems to have been formed upon a uric acid nucleus, and it seemed to me not improbable that the calculus was in the bladder at the time of the protracted and I think an instrumental labor. It seems to me not improbable that the stone had something to do with the production of the fistula and I don't know exactly how a calculus would have formed any such opening. I don't know how it happened to be overlooked; I think it is probable it protruded into the bladder. It is mostly a

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phosphatic calculus and may have been the result of cystitis; it would then have been formed after labor and after the production of the fistulous opeuing, but if it had been the result of the alkaline condition of the urine it would have been a phosphatic calculus exclusively.

Dr. Papin.—In the spring of 1871 my friend Dr. Nagel called me to see a case on the Gravois Road of a phosphatic calculus about three times as large as this with a fistulous opening as large as the diameter of this stone. I crushed the stone within the bladder and washed it out and then turned my attention, as the doctor has done, to modifying the inflammatory condition of those parts with the view of closing the fistulous opening. In June I almost succeeded in closing the opening; only a little goosequill orifice remained. In the latter part of October I performed a final operation and in three weeks afterwards sent her home. This woman had been confined to bed for seven years; I was her thirteenth doctor. She was so afflicted from the effects of the urine percolating along the walls of the vagina and vulva that she was at times unable to move herself in bed, or to move her limbs. They had arranged a rope from the ceiling by which she pulled herself up. I was the discoverer of this calculus as far as I know.

Dr. Ford.—The connection between these calculi and vesico-vaginal fistulæ is very interesting. We know that they are of not infrequent occurrence, and indeed that they may occur in the bladder we have no reason to doubt in consequence of the displacement of the parts and of the cicatricial corrugations which are formed in consequence of the rents and lacerations. I think Dr. Campbell, of Augusta, Georgia, has struck a very important note in this manner some years ago when he first expressed the opinion that in the greater number of these cases the presence of the stone was the cause of the vesico-vaginal fistula by pressure and sheer laceration of the tissues and by obstruction of the passage of the head in parturition. In several cases coming under my own notice I have felt convinced that there is a great deal of truth in the position, and I think that the profession is about to accept Dr. Campbell's idea, not as a universal thing, but as a condition which in a certain number of unsuspected cases results in the production of vesico-vaginal fistulæ, viz., pressure of the head upon the stone by which sphacelation or direct laceration of the walls of the vesico-vaginal septum is induced.

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PELVIC CELLULITIS.

Dr. G. A. Moses.—It might occur occasionally. If there is nothing before the house I might mention a case of cellulitis. Last summer a lady, a married woman, who had a child some two years previously and was delivered with forceps, called upon me to be treated for pelvic cellulitis from which she had suffered to some extent after delivery. She had been subject, as was supposed, to violent neuralgic pains, particularly pelvic, but very often also abdominal; she was in the habit of using narcotics. I was called in during one of these supposed attacks of neuralgia. Not knowing anything about the history of the case I took it for granted that she had been very subject to these attacks, although I could not trace them to any condition of the alimentary canal. As she was pregnant at the time, I gave her morphine, which she was in the habit of taking; and she supposed, as she had been subject to these apparent attacks of neuralgia as she called them, that she had taken cold. The remedy relieved her temporarily, but on the following day I found that she was suffering again, and, making an examination of the abdomen I found considerable tumefaction above the pubes, and making an examination per vaginam I found the uterus exceedingly tender and quite enlarged. The increase of size of the abdomen had come on very suddenly; when I first called the abdomen was not perceptibly enlarged, but when I examined her afterwards it was as large as in the sixth or seventh week of pregnancy, possibly the second month. Dr. Boisliniere was called in consultation. There was a great deal of fever, with a very irritable stomach. Being pregnant, and with a very extensive pelvic cellulitis, of course I expected an abortion, which took place without any particular trouble. The uterus assumed a fixed position; there was very little uterine discharge and I thought perhaps under those circumstances by the use of antiphlogistic remedies and careful treatment that she would recover. She went on from bad to worse, however, the abdominal effusion being increased. There was very intense pain, high fever almost septicemic in character. Drs. Boisliniere, Gregory and myself thought it might be proper to make an effort to empty the abdominal cavity of the increased effusion. Dr. Gregory with his usual conservatism and good judgment opposed an operation. She continued much the same but with no increased effusion and with about the same condition of the pelvic cellulitis. The case went

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on for eight or ten weeks, she was very ill and became very much opposed to remaining in the boarding-house where she was living; she wanted to go out in the country, where her parents lived, but we were afraid that if we attempted to move her, she would die in the attempt. However, she was moved out into the country and I did not see her after she left. I have heard that she got worse and worse, became delirious and absolutely insane and continued in that condition for several weeks, when she began to get well. I understand now, that after five or six months she has probably passed the crisis, the effusion has disappeared and that some of it has possibly escaped from the rectum, and that she is now rapidly recovering.

Dr. Papin.—What was the treatment?

Dr. G. A. Moses.—Various antiphlogistic remedies, mercurials, etc.

Dr. McPheeters.—Was much pus passed per rectum?

Dr. G. A. Moses.—I don't think there was much pus at any one time, but there was probably a gradual passage into the bowel so that it was evacuated; she was a very feeble, delicate looking woman.

Dr. McPheeters.—Did the recovery commence from the discharge of this pus?

Dr. G. A. Moses.—It was a very gradual recovery; I have not seen her since she went to the country. I think this is an interesting case from the fact of its long continuance, the very low condition and ultimate recovery.

Dr. Ford.—A lady has just placed herself under my care, who states that about sixteen months ago, after lifting a heavy bucket of water, she felt something give way and felt badly afterwards although she had no chill,had no syncope and did not feel exceedingly weak, nor go to bed. After two or three days she felt gradually worse, a cellulitis set in, from her description of the symptoms. Some days afterwards she felt something give way in her abdomen and noticed, as she says, that she seemed to be "all loose inside, and when she turned over in bed it seemed as if something would fall," I have seen in one or two cases of hematocele such a symptom as this.

Dr. Papin.—There must be a considerable rupture of the connective tissue in order to have this perceptible rolling sensation.

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Dr. Ford.—I recollect a case that I had some time ago where a man and his wife were playing together; she made a pass and he jumped at her, and they both fell and he upon her, his knees striking her upon the abdomen. She happened to be at about her period, and I suppose there must have been fully a quart of blood effused into the peritoneal cavity judging by the sounds on percussion and the physical symptoms. This case was accompanied by the same feeling of swashing about.

Dr. Engelmann.—Dr. Endris has brought some other instruments which I think would be of interest to the Society, I will call attention particularly to this cold water coil. I think I showed one several years ago to this Society, but this coil you notice instead of being made of rubber is made of metal; while rubber is a non-conductor this is not, consequently there is this advantage about the use of this metallic coil. By the use of this coil, which is very pliable and can be adapted to parts exactly, the temperature can be readily modified by causing the current to pass through it more rapidly. The coil is attached to a vessel of water which is elevated more or less according to the degree of heat or cold is desired.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 4, 1884.

CANCER OF TESTIS.

Dr. Tupper presented a specimen from a patient aged about 54 years. No ill health had kept him from his usual occupation of a shoemaker until he entered the hospital. He noticed first an enlargement of the right testis about five years ago; painless and not enlarging rapidly. The growth was irregular, would increase for a period and then seem to remain quiescent. It had been most rapid within the last year. Dr. Tupper said the specimen did not show the real size of the testis, because that was filled with fluids which had escaped. There was no glandular enlargement detected in the groin or elsewhere. The man showed no marked cachexia; he was a little anemic and had a care worn expression; he was of a very sensitive disposition and no doubt entertained fears that the trouble would cause his death. He had this removed simply be-

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cause of the mechanical inconvenience attending it, this testicle hanging about half way down the thigh and causing considerable disfigurement, which was apparent through his clothing. The testis was very unshapely, had a semi-elastic feel, and here and there were softer places, especially so at the lower portion of the growth. The exploring needle was passed into the testis and moved freely in the cavity; when it was withdrawn bloody serum flowed out in considerable quantities; the cord and vessels were tied. An incision through the scrotum was made afterwards, and the testicle was peeled out without any difficulty. There were three compartments; the one which is empty contained a clear fluid something like the contents of a cyst. The fluid was a thick pultaceous mass and most of it was spilled upon the testicle being cut open. It showed under the microscope the characteristic cells of encephaloid cancer. The doctor thought the specimen somewhat interesting on account of its size and because of the man's age, he being over 50 years of age. These encephaloid tumors in the testicle are usually found in younger men, aged between 20 and 40. The artery of the cord was not much enlarged; the veins seemed to be somewhat enlarged and pultaceous; the cord seemed to be rather enlarged. Dr. Tupper thought it was Bryant, who says that in these encephaloid tumors of the scrotum we very frequently see cysts which sometimes contain clear fluid like an ordinary cyst and non-malignant growth; and that they sometimes contain broken down pultaceous materials loaded with cancerous matter. Bryant says, however, that we sometimes find portions of cartilage in them, but you don't find that here. The upper or highest cyst contained fluid entirely different from the one below, which was purely cancerous. There was no history of injury at all.

VESICAL CALCULUS.

Dr. Prewitt presented a calculus that he had just removed from a patient from south-east Missouri.[1]

TREPHINING.

Dr. Prewitt also presented a fragment of bone removed from the skull of a young gentleman who on October 2, was struck by a twelve and one-half pound weight of iron that was

1. As the same specimen was presented to the Obstetrical Society we refer to report there given, vid. p. 155

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used in the running of an elevator. He was standing in the elevator and had hold of the check rope, when this weight fell and struck him near the upper posterior part of the parietal bone, making an oblique cut about two inches in length. A physician in the neighborhood applied a temporary dressing and he was sent home. Dr. Prewitt introduced his finger and found a deep gutter in the bottom of the exterior cut over two inches in length; there seemed to be two walls and a central piece forming the floor of the gutter. He was perfectly rational and conscious. He thought that he didn't lose consciousness at all, though others said that he seemed to be dead for a short time. The doctor decided that trephining was necessary and removed several fragments of bone, leaving a portion of the dura mater uncovered. Along the central line near the point of deepest depression was a very slight scratch of the dura mater, but no break at any point. Having washed out the blood from the cavity and dusted in iodoform, an antiseptic dressing was applied. His temperature on the evening of the fourth day was 99.6° and that was the highest point it ever reached.

FISTULA IN ANO.

Dr. Tuholske reported the case of an old gentleman about 60 years old, who sent for him on account of a fistula in ano, stating that he had been operated on three times by some one here in the city. A small opening at the side of the anus led into the rectum not far beyond the sphincter. The case had been considered very clear and the ordinary operation of cutting through the sphincter had been performed, but without any success. The cut would heal kindly at the base, but, after healing, a good deal of pus was discharged from the rectum. He looked like a man in whom suppuration had been going on for some time, and as if he might have some amyloid degeneration. Examining a little further with the finger in the rectum, and sweeping it across the posterior wall it came in contact with some denuded bone, the coccyx in a condition of caries and discharging pus that had accumulated in the rectum in considerable quantities and was then expelled. It was found that two years prior to the occurrence of the fistula he had sustained a fall, sitting right down on the end of his spine. There had been a certain amount of tenderness and pain in that locality ever since. The flesh was not changed in color, but on pressing the end of the finger against the coccyx, air passed in and out through the

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opening in the rectum. After making an incision, maybe two inches in length, the coccyx was found perfectly disconnected and loose. The doctor removed it, washed out the cavity and put in a drainage tube. The wall of the rectum shrunk up in a very short time and the fistula then took care of itself, and got well in a short time without any further trouble. The sphincter retained the fluid perfectly.

Dr. Bryson called attention to several points of practical interest in Dr. Tupper's case of cancer of testis, among them the length of time that that testis had been diseased and the condition of the cord, which apparently was not diseased at all, though for five years the testis had been enlarged. This man had said, also, that some three or four years ago a trocar had been introduced by the surgeon who was treating him here in the city at that time, and some fluid was drawn off. Other interesting facts were the patient's age, over fifty years; and the trouble lasted such a length of time without any disease of the cord, and without ulceration through the scrotum, and the absence of pain, altogether making the case extremely difficult to diagnose. The impression given to the touch was just that of a large old hydrocele. There was no translucency at the time of the operation. The veins were large and they were rather more injected and redder than usual. In examining this tumor before the operation it was possible to make out the cord which appeared to be normal. So far as any impression it gave to the touch was concerned, it didn't seem to be enlarged at all, so that it was thought possible for that reason to say that it was not a hernia. He said that he had seen one case of hernia where the cord was entirely normal as far as he could determine, and still there was a large omental hernia. The fact that this tumor grew to such a size very slowly leads him to believe that it commenced as a sarcoma and afterwards underwent alteration, which is apt to take place in these growths of the testes. He believed that one peculiarity of this disease was the great variety of cellular elements found in these growths.

Dr. Frank Glasgow said that he made a very cursory examination of the tumor simply placing a portion of the scrapings upon the slide and found that it consisted entirely of very round cells with a very distinct nucleus. These cells were three or four times as large as red blood corpuscles, of which there were a few in the scrapings, and in all probability

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they were epithelial cells and apparently nothing else. Of course the structure of the tumor could only be made out by section. As round-celled sarcoma of the testes is ordinarily small round cells and these are very large, he supposed them to be epitheliomatous.

Dr. Prewitt said that the principal point in these cases was regarding the advisability of an operation. In certain tumors of the testicle we can expect good from treatment. In syphilitic testicles, for instance, we might relieve the patient; but a growth of such a character as this, we might conclude very readily, would not be benefited by any sort of medical treatment, so that the only thing that could be done would be to remove it, whether a sarcoma or a cancer of the testicle. The obscurity of the diagnosis of course in many of these cases, as Dr. Bryson says, would be very great. It seems to him, however, that had it been a hydrocele, the testicle would still possess its peculiar sensibility, but when these growths occur this is always destroyed.

Dr. Bryson said that in this case it was impossible to squeeze the testis and determine as to the sensibility of it. If it had been a hydrocele, it would have been impossible to catch the testis in such a large tumor which extended about half way down the thigh.

Dr. Prewitt asked whether the fact of its being so large a tumor was not prima facie evidence of its being a sarcoma rather than an epitheliomatous tumor.

Stated Meeting, November 18, 1884.

CANCER OF RECTUM—COLOTOMY.

Dr. Carson presented a case upon which he had operated for cancer of the rectum. He advised its excision four years ago, but the patient would not consent. He had some trouble of the knee, which troubled him more than the rectal trouble. He then left the hospital and was seen no more until a few weeks ago, when he returned, and on making an examination the rectum was found almost closed. Under the influence of chloroform, Dr. Carson introduced his finger with great difficulty, and found that the disease was far beyond reach, and therefore thought it best not to attempt to remove it; but in order to mitigate for the time being his sufferings, and in hope that his life might be prolonged, performed lumbar colotomy on a Saturday. The stitches were removed on

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the following Tuesday; since which time he has had no trouble at all. Most of the discharge from his bowels comes through this opening. He says his condition has very much improved and his sufferings have lessened. During the first few days there was considerable pain, but since that the wound has commenced to contract and there has been very little pain. He still has a slight movement from the bowel, no fecal matter, only blood and pus. He says that it gives very little discomfort; he is able to control and keep it clean; he can always tell when his bowels are going to move. Dr. Carson said he had made no examination to determine the condition of the lower part of the rectum; it caused so much suffering to open the orifice, and he had not wished to inflict any more pain than was necessary.

Dr. Bryson testified to the improvement in the man's general condition since the operation. He had a better color and seemed stouter. These cases are peculiarly unfortunate in this, that opium does not offer the same kind of relief that it does in cases of malignant disease in other organs, for the simple reason that opium is constipating, and the suffering is largely due to the passage of fecal matter over the diseased tissue, and the opium increasing the solidity of the feces, of course increases the suffering. It seemed reasonable to suppose that this operation would prolong life; that lessening of suffering, and the ease and comfort with which the bowels are moved would tend to prolong life and make it vastly more bearable. He wished we could get reports of all cases of excision of the rectum for cancer, so we could arrive at something like an idea of what is to be expected from excision.

Dr. Carson thought an interesting point in this case was the length of time that the disease had existed. Four years ago there was a cancerous infiltration; and although the growth was not as large as now, and did not involve so much of the intestine, yet it was considerable. He presented from the time of his entrance into the hospital this last time a marked cachectic appearance which was still present to a certain extent, and which is said to be more marked in proportion with the amount of diseased tissue in cases of cancer of the rectum than in cancer involving any other part of the body.

Dr. Bryson asked if Dr. Carson would recommend an operation of that kind when there was an inflammatory condition of the rectum.

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Dr. Carson said that he would advise colotomy in cases of rectal ulcer which gave much trouble in healing,as they are not really malignant ulcers, but border on malignancy in the slowness with which they heal or yield to treatment. He had one case of that kind which presented very much the characteristics of malignancy, and the patient was for months and months under steady treatment before it healed. The patient attributed the healing finally not to the nitrate of silver injections which were given, but to the healing properties of the water of Eureka Springs. He was so much infatuated with the Springs that he bought a corner lot, and after his return had barrels and barrels of water shipped to St. Louis. The doctor said that in this case, while he could get no history of syphilitic disease, he suspected something of the kind and put him on the iodide of potassium aud bichloride of mercury and other anti-syphilitic remedies, and he seemed for a time to improve under their continued use, but these finally failed to affect him. Then finally he gave him very strong solutions of nitrate of silver injections; these seemed to do him good and he was improving when he left for Eureka Springs. The doctor had divided the sphincter and scraped the ulcer and made applications of various kinds, nitrate of silver, mercury and various things. The only thing which seemed to do him any good at all was very strong injections of nitrate of silver; nitrate of silver was applied to the surface of the ulcer repeatedly without effect. The patient recently died with aneurism of the aorta.

Dr. Schenck asked if there would be any trouble in closing the opening after the rectum was healed.

Dr. Carson replied that the tendency is for the opening to close; the only difficulty is in keeping it open after it has cicatrized. He said that he just learned from Dr. Tupper, who had looked up the records, that it had been six years since the man was at the hospital first.

Dr. Bryson stated that he had a case of carcinoma of the rectum in which there had been trouble for about seven years; twice he had scraped the parts with the curette, so as to keep the rectum patulous; but while the growth did not spring up so much, the base of it was continually indurating more and more. When he first saw it, it was out of reach. He advised colotomy when the disease should have advanced so far as to become painful in emptying the bowels; it had about reached that stage now. But the dif-

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ficulty in these cases was to get the patient to consent to the operation, as he had always felt it to be his duty to lay plainly before the patient the disadvantages as well as the advantages of the operation. He thought that the operation was not performed in all cases in which it would do good. A case came under his care where there was a pelvic abscess opening both into the rectum and bladder, escaping the vagina and uterus, and where feces and gases passed through the urethra, in which really colotomy was the only thing that would have saved the patient's life. In that case he advised colotomy, but putting before the patient and her friends the disadvantages as well as the benefits to be derived from it they postponed it until it was too late. He believed in that case that the patient's life would have had a much better chance of being saved if colotomy had been performed.

Dr. Carson asked whether the time to do that operation in order to prolong the life of the patient and to derive any decided benefit would not be before the disease had advanced so far that defecation became painful and difficult.

Dr. Bryson said that he thought it would have been better to have made a colotomy some months ago; that the patient would not have lost so much blood, would not have suffered so much pain, and that probably the growth would not have been so rapid, but the patient would not consent to the operation.

Dr. Gregory regarded it as a very difficult subject, and while there are cases, and he believed that this was one of them in which colotomy is right and proper, he thought that those cases were very few where it did any great amount of good. The complication most likely here was prolapsus, one of the most troublesome complications incident to these cases. And as for the recommendation of colotomy for the majority of cases of rectal trouble he doubted very much the propriety of it; thought it ought to be reserved for exceptional cases. As to the slow progress of the disease, if this was a malignant trouble it was an epithelioma, the slowest of all known pathological processes. Surgeons see it after it has existed for years; after the patient has been suffering for years. They last 30 years or more. While he recommended the colotomy he doubted if it was a typical cancer; whether there was not some other morbid process or growth depending upon some abnormal condition of the rectum. The conditions of the rectum resulting from syphilis, perhaps, are the most

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stubborn of all local syphilitic manifestations. He thought that only in exceptional cases are we warranted in performing colotomy. A certain authority on diseases of the rectum has performed these operations very often, and though at first he was an enthusiast, he is not so now, but questions very much the propriety of its frequent employment, and so states in the last edition of his book. It seemed to Dr. Gregory that this surgeon had reached the conclusion that colotomy is only proper in exceptional cases, and seemed rather to regret that he performed it so much, and after performing it so many times to feel that the aggregate good is not so much as to urge the frequent repetition of the operation.

Dr. Carson stated that they questioned this patient and made examinations for evidence of syphilis and could find none, and so far as the examination made under chloroform was concerned, it did not feel like cicatricial tissue but like induration of true cancerous infiltration. In this opinion Dr. Bryson concurred. Large doses of iodide of potash continued for a considerable length of time had no decidedly beneficial effect.

Dr. Gregory, in answer to a question whether in a case of ulcer of the rectum that was difficult to heal and resisted all treatment, he would not recommend and make colotomy in order to give the bowel rest and in hope of removing the ulcer, said that that would come under his exceptional cases in which he thought it a warrantable operation.

In answer to questions by Dr. Leete, Dr. Carson stated further in regard to the patient treated by nitrate of silver injections that they used strong injections. The sphincter was divided and well dilated and the entire surface of the ulcer was touched with strong applications of nitrate of silver. After this he was placed upon iodide of potash and bi-chloride of mercury in increasing doses. This was followed by other internal treatment and applications of fuming nitric acid, injections of sulphate of copper, about a scruple to the ounce, and zinc sulphate injections of about the same strength. Then there were applications of nitrate of mercury, iodoform suppositories and suppositories of opium, etc., and the parts were touched often with nitrate of silver. The general appearance of the ulcer was very sluggish, about an inch and a half in length and fully three-quarters of an inch in width, covered with a dirty, grayish slough and irregular sharp cut edges. Repeated investigations revealed nothing that would indicate syphilis, but as he had

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been a man of the world we were suspicious and gave the man the benefit of the doubt.

ULCER OF LEG.

Dr. Leete said that during his hospital life he was in the ward of Dr. R. J. Levis, and among the patients were some who had indolent ulcers of the legs of long standing; typical indolent ulcers, somewhat serrated, somewhat undermined, with somewhat flabby granulations, and which didn't respond to treatment at all. In a number of those cases there was a distinctly varicose condition of the legs, and it seemed to him that rest and position would do much toward their successful treatment, and that if he could get rid of those hardened edges the treatment would be much simplified. In one case of varicose ulcer of the leg, he pared off the hardened edges, under an anesthetic; but it was not altogether satisfactory, and finally he resorted to this plan. A piece of lint that would just come outside of the hardened edge was saturated with oil and laid on carefully, so as not to touch it, and after protecting the parts carefully he used potash on that edge, having given the patient a good round dose of opium an hour or so before the operation. After getting rid of the slough, the limbs were elevated and a solution of chlorate of potash constantly applied and afterwards adhesive plaster straps, and in every instance the treatment resulted satisfactorily. In these cases he strapped the parts up carefully, and in due time the success was very gratifying. When Dr. Levis turned over the wards to Dr. S. D. Gross or D. H. Agnew, his successor as consulting surgeon, he said that the treatment in the ward had been the most successful he had ever seen, and that he had seen a greater number of indolent ulcers healed in the seven months than he had ever seen during the time he had been in Philadelphia.

Dr. Leete thought that we could apply the same principle to cases of ulcer of the anus with gratifying results. He was satisfied that in inflammations of the rectum there are some cases where we can get better results by using very mild applications than by using the more heroic ones; that fuming nitric acid was one of the ugliest and most uncontrollable things that we have to use. Where there are hardened edges of rectal ulcers, if they could be removed absolutely, the parts be kept as quiet as possible and the ulcers be dressed with the most unirritating applications, we might obtain better results. While he understood the

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difference between treating an ulcer of the leg which can be kept perfectly stationary and in a good position, and treating ulcers of the rectum, he thought perhaps these suggestions might be made of some service.

Dr. Carson thought the two classes of ulcer were in no way comparable: ulcer of the leg will take on the healing process and go on and complete it without any strong applications at all. Where the edges are very hard and indolent the healing process is often aided by the application of straps, and that was the mode of treatment they had adopted. But ulcers of the rectum are constantly irritated by the fecal matter which is constantly passing over them and it is impossible to put them at rest. Fuming nitric acid was very useful, in some of those cases more favorable than anything else.

Dr. Gregory wished it put upon record that these cases are not very frequent, and that this operation should not be resorted to except in rare cases. As to the treatment of the leg he remarked that if there was anything in surgery more satisfactory in its result than any other it was the treatment of those ulcers. The recumbent posture was unnecessary unless in rare instances. While under treatment the patients can go about their business and come to the hospital clinic every week. Sometimes a case would be very materially benefited by lying down for a week and elevating the limb, but people say, "Doctor, we can't do it." Perhaps a woman with a number of children to take care of insists that she must be about, there is no one to take her place. She is treated with adhesive strips and a bandage, comes back may be half a dozen times, but after this is so much relieved that she is enabled to discontinue the treatment and then goes about her business. This method was one of the most admirable suggestion ever made in surgery. He was almost ready to say that it never fails. These patients come to the clinic with great ulcers and with eczema which keeps them awake at night, burns and itches and makes life intolerable; they cure the ulcer by this method, and they get well also of their eczema. The adhesive plasters are cut into strips about one inch in width and long enough to embrace the leg once and a few inches more. Over the ulcer and an inch below it and an inch above it are laid successive strips, each one overlapping the preceding strip. Then the surgeon takes the roller bandage and applies it from the foot up to the knee. The pa-

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tient goes about his business returning every three or four days. The plasters are cut on one side and lifted off and new ones applied.

Dr. Hardaway remarked that many eczematous cases are cured when cured of their ulcers.

COLOTOMY.

Dr. Prewitt said that colotomy is now thoroughly established in cases of cancer of the rectum which has confessedly a very low form of malignancy. This is very slowness in developing, which makes the case more hopeful where we can remove the irritation from the ulcer. In the early stages if the growth is limited and can be readily excised that should be done; but if the growth cannot be extirpated, we should resort to colotomy and the earlier it is done, the better. We don't do it simply to give exit to fecal matter that cannot get out in some other way, but to prevent the ulceration which is inevitable if it be constantly irritated. In cases of constriction of canals there is inevitably sooner or later ulceration above the point of constriction. Attempts to remove malignant growths of the rectum after they have passed the stage where they can be completely extirpated, only aggravate the growth and consequently hasten the fatal termination.

Dr. Gregory doubted very much whether fecal matter is irritating. On the other hand he thought it probable that it is a good application to an ulcer. The popular idea that fecal matter is a good poultice is well-known. Our German fellow-citizens think it the best poultice that they can use.

Dr. Bryson did not regard fecal matter as irritating to the bowel, but thought the movement might occasion trouble. He was not willing to go quite so far as Dr. Prewitt, and was by no means certain that the arrest of the movement of the fecal matter over the part would arrest the growth, though it might arrest the ulceration. He thinks the operation should be performed only for the sake of producing rest, that colotomy is our resource in those cases where the growth has advanced to the point that it cannot be fully extirpated, where excision is not allowable.

OTITIS-NECROSED BONE.

Dr. Spencer reported a case of somewhat rare occurrence commencing with suppurative inflammation of the middle ear in a man

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past fifty years, residing in this state. He was sent to the doctor after suppuration had commenced and there was a discharge through the external auditory canal. His physician became alarmed at some serious cerebral symptoms. On examining the ear the meatus was found filled with exuberant tissue which proved to be a prolapsed wall. There was a very profuse discharge, and he had been suffering a great deal. By pressing aside this growth the discharge was found coming from that quarter, not as we ordinarily find, through a perforated membrane. There had been all the symptoms of an ordinary suppurative otitis. After pursuing the usual course for reducing this condition of the tissues in the meatus, a probe introduced through the opening discovered dead bone on the posterior bony wall. Inflation by Valsalva's method forced pus through this opening. The man had a rigid membrane and the drum head had not been overcome by the process of inflammation. The pus had dissected its way underneath the tissues of the inner meatus to find an exit at about the junction of the bony with the cartilaginous portion of the canal.

Dr. Spencer had excised all this portion and remedied this prolapsed condition of the wall. After treating him for a short time he succeeded in getting a favorable result with the closure of this opening. Of course the drum head had always been intact. In answer to a question from Dr. Briggs Dr. Spencer said that he could only account for the death of the bone there by the fact that this was the point of exposure. Of course the pus had burrowed under the periosteum and exposed the bone at this point, and carious action had taken place.

REFLEX ASTHMA.

Dr. Spencer also reported a case of severe asthma due to reflex irritation from a large nasal polypus. The asthmatic symptoms had been of the most exasperating kind. These attacks had come on periodically for a number of years. Her physician had treated her as those cases are ordinarily treated, and latterly had given her nitrite of amyl for the relief of the attacks. The polypus was a very large one, and immediately upon removing it she had relief from the symptoms. She never had

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recurrence. The polypus was attached to the turbinated bone and occupied the cavity of the posterior nares. Her breathing was through the mouth, which might be partly the cause of her symptoms, the nose being the natural respirator?

Dr. Hardaway remarked that Dr. Mulhall had mentioned a case of a man who had bronchial asthma, and, as he very happily called it vesical asthma, the difficulty being in passing the urine; there was spasm of the bladder, etc. He removed the growth and both troubles ceased. Some months after the man came to him fearing there was a little new growth. He used some strong acid which produced an ulcer and eschar, and pressure there brought on reflex trouble again in both places, bronchial and vesical.

PRECAUTIONS AGAINST CHOLERA.

Dr. Schenck introduced Dr. Bell the editor of the *Sanitarian*, the leading sanitary journal of the country, who was here as a delegate to the American Health Association.

Dr. Bell said that he could add little to what had been said at the conference of the State Boards of Health in their communication made public at the National Public Health Association. He ridiculed the pretense of quarantine regulations said to be adopted in Italian and French hospitals and towns. He said that old, dilapidated structures, filthy in the extreme, had been used to keep persons in for thirty days or more for no reason whatever. The pretensions of cleansing of vessels had been pretensions only; they had neither been inspected nor cleansed, while the officials seemed not to care where travelers took the cholera, provided they could go through some performance which would prevent people from bringing it to their own towns. On the other hand, England had resisted any examination of vessels on departure; she seemed to regard it a matter of private right for an English vessel to clear from any place, only under the inspection of English officers in charge, no matter where the vessel is bound to. The representative of the country to which she may be bound, from an English point of view, has no right to ascertain her condition. She depends solely on home cleanliness, and assumes that others will do the same. In the last decade there had been less cholera in India than perhaps in any previous decade. The public health of India was perhaps as good as the public health in England fifty years ago. He said there were Indian states that used

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to have cholera perennially that now have it rarely. By such results and constant practice England's faith in cleanliness seemed to be increased. The doctrine of John Freeman years ago seemed to be intensified, that whatever may be the material poison of cholera that which gives it a home is preventable and removable. Although it had extended to cleanly places sometimes it had never begun in them. And with reference to preventive measures for cholera, cleanliness of all places and above all those hidden places that were closed up by fences in yards was the most important thing. He was gratified to find many places in newly built up parts of the city where he could see straight through the grounds; where there were no walls, no back yards closed in; to see that people begin to feel there is nothing in back yards that one need hide; nothing from which they should keep the atmosphere. If we could only apply this to the older parts of our cities in the same way and apply the same degree of cleanliness he believed we should adopt the most effectual of measures for keeping away the cholera. The measures used in the suppression of other epidemics, the stamping out of such diseases as scarlet fever, measles, whooping cough and diphtheria, he believed would be equally efficacious in stamping out cholera even should it appear.

Dr. Homan said that in regard to the recent meeting of the Public Health Association he was inclined to attach most importance to the fact that the National Association of Plumbers had made a formal application for membership in the Public Health Association.

Dr. Briggs remarked that we must have first the germ in order to have the cholera and then the nidus in which the germ can come to maturity to produce its result, that the germ had not reached us yet, and nothing we could do would destroy it but we must destroy the nidus so that when the germ should come it would nave no ground upon which to produce its results.

QUARANTINE.

Dr. Wyman of the Marine Hospital Service and a former resident of St. Louis and a member of this Society up to the time of his leaving the City, expressed his pleasure in attending the meeting. Marine quarantines he believed could be made a very powerful aid in keeping the cholera from the country. It could not do every-

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thing. While marine quarantine was necessarily imperfect, at the same time the detention and the careful supervision of ships and the removal of infected persons or of persons suffering from sickness and cleansing of ships was certainly a work in the right direction and must accomplish a great deal of good. Of course it cannot be relied upon to the exclusion or neglect of other measures, municipal sanitation etc. He spoke strongly in favor of maintaining the embargo upon the importation of rags.

JACKETS FOR POTT'S DISEASE.

Dr. Steele presented a jacket made of open netting material soaked in gelatine; very porous. He much preferred it to plaster of Paris in Pott's disease. He also showed a perforated sole leather jacket. In treating a case of Pott's disease in the dorsal region he made a jacket coming over the shoulder and extending well down. Some months later the patient thought that paralysis was coming on, and on examination the doctor found that the disease was breaking out lower down in the dorsal or lumbar region. The trouble occurred not because the jacket had not been doing good service but because the disease was breaking out lower down. He thought the netting jacket came from Paris, that the netting was cut in strips, made into a roller bandage and applied around and around, the material being soaked in a strong solution of gelatine and allowed to dry repeatedly.

PARTURITION AFTER TRACHELORRAPHY.

Dr. Schenck reported that during the last six weeks he had had three cases of labor in persons upon whom the operation for the restoration of the cervix had been performed. Dr. Murphy, of Washington, had strenuously contended that the operation upon the cervix is productive of sterility. He didn't think that Dr. Murphy's view had met with the approval of the profession. The first case was one in which he delivered the fourth child, being the second child after the performance of the operation. He couldn't notice that the labor was slower than ordinary. The second case was the birth of second a child, the operation having been, of course, after the first child's birth. This was a breech presentation; the dilation was slow, but the waters breaking very early was the cause of this and not the condition of the cervix. In neither case was there any difference in reference to the dilation nor any injury whatever to the cervix.

Dr. G. A. Moses was of the opinion from the reports of

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cases of which he had heard and from cases which he had witnessed in his own practice that the operation had no special bearing upon sterility or fertility except so far as the amelioration of a pathological condition will render fertility more probable. Conception occurs in cases in which the cervix has been enormously lacerated and everted, and which presents every appearance of inflammatory action undoubtedly occasioned by the lesion of the cervix, provided the cavity of the uterus itself is in a healthy condition, as is frequently the case; but these cases in the large majority of instances result in abortion, if the lesion is of a very extensive nature, not in sterility but in abortion in a great many cases. To secure practical results as the effect of the operation it must be successfully performed. When the inflammation resulting from a laceration is relieved, conception is as apt to occur as in the first instance. If an imperfect result has been obtained and extensive cicatricial tissue remains, even though to all appearance the canal may be perfect, we may have a condition which may result in persistent sterility. But that must be considered as the accident of an imperfect result and not as caused by the operation. He had only seen two instances of labor occurring in these cases, and in these there was absolutely no deviation from normal labor. He believed that the operation favored conception and normal labor following it. He thought it one of the most valuable operations that had been taught, one that had undoubtedly been done under circumstances where it was not necessary; but year by year this would be improved upon. In fact even Dr. Emmet had announced that he now declines to operate on cases that years ago he would have operated on, and Dr. Moses was inclined to think that Dr. Emmet was making a mistake in the other direction. He was satisfied that in all cases, whether there were sterility or not, where there was severe laceration it should be relieved by operation. He had seen within a few days two cases of advanced malignant disease of the cervix which he was satisfied resulted from lacerations.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION.

The Southeast Missouri Medical Association held its eighth semi-annual meeting at Jackson, Mo., on November 11, 12, 1884, amidst the booming of cannon and the noise and excitement at-

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tending the late political contest. Medical enthusiasm was eclipsed by political enthusiasm and the average member in attendance was more anxious to hear from New York than to hear a dissertation upon the most intricate medical problem. However, the attendance was good, there being twenty physicians present during the course of the meeting. The following papers were read and discussed: "Carbolic Acid," by G. W. Farrar, M. D., Ironton, Mo.; "Placenta Previa," by C. M. Witmer, M. D., Marble Hill, Mo.; "The Identity of Membranous Croup and Diphtheria," by R. T. Henderson, Shawneetown. Mo.; "Hip-Joint Dislocation; Successful Reduction After Twelve Weeks," by L. T. Hall, Potosi, Mo. Written and verbal reports of many interesting cases were discussed. Counsellor's reports were heart from every county in the district, except St. Genevieve, St. Francois and Scott. Charges were preferred against Dr. A. J. McKinney, of Marquand, Mo. E. A. Vogt, M. D., Tackes, Mo., was admitted to membership. The association adjourned to meet at Fredericktown, Mo., on the first Tuesday in May, 1885, at 3 o'clock, P. M.

SCHOOL OF BIOLOGY.—The only institution of this sort in America has been established in connection with the University of Pennsylvania, in Philadelphia. It was formally opened December 4, 1884, and was opened for study and work December 8, with thirty students upon the roll.

A new building has been erected for the school, a plain two story red brick structure near Pine street and Woodland ave. Laboratories, library and professor's rooms are on the upper floor; lecture theatre, working rooms and museum on the first floor, and in the basement a large, dry storage room, an aquarium room, a live stock room, janitor's rooms etc. Dr. Joseph Leidy has charge of the institution and the school is represented at Dr. Dohrn's biological station at Naples, Italy, by Dr. Chas. Dollay, of Rochester, N. Y., whose duty it will be to communicate the results of any observations or researches made there.

PROF. HENRY F. CAMPBELL.—His many friends will be gratified to know of the entire success of the operation for the removal of cataracts from the eyes of the distinguished president of the American Medical Association.

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FOREIGN CORRESPONDENCE.

LONDON LETTER.

DR. MAHOMED.—COLLEGE OF PHYSICIANS.—MR. HORSLEY'S "BROWN LECTURES" ON THE THYROID GLAND.—TESTIMONIALS TO PROFS. HUMPHRY AND PAGET.—STREET ACCIDENTS.—OVER-PRESSURE IN SCHOOLS.—CHARCOT'S JOINT DISEASE.

LONDON, December, 1884.

Dr. Mahomed, to whom I alluded in my last letter as the proposer of a resolution at the Royal College of Physicians for the purpose of regulating the sale of drugs in England, has since died of typhoid fever. He was an assistant physician to Guy's Hospital and also a physician to the London Fever Hospital, where he is supposed to have contracted the fatal malady. He was a most energetic and impulsive man; difficulty and opposition only stimulated him to increased exertions. He was the founder of the scheme for collective investigation carried on for the last two or three years by the British Medical Association, and proceeded to Copenhagen last August for the purpose of advocating its international adoption. In this he succeeded. Dr. Mahomed was a frequent attendant at the debates of the medical societies, and in the early part of this year advocated with much warmth the treatment of typhoid fever by the cold bath when that subject was before the Medical Society. He wished his own case to be so treated but it was not deemed necessary, owing to the mild course of the fever. He subsequently died of profuse intestinal hemorrhage. Had the cold bath been resorted to no doubt this untoward complication would have been ascribed to its use. The reference which Dr. Mahomed made to the charter of the Royal College of Physicians, and which I mentioned in my last letter, reminded me of a very interesting account of the College to be found in Ackermann's

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"Microcosm of London," from which I have extracted the following details:

The College of Physicians was first incorporated in the reign of Henry VIII, and Dr. Linacre, who was the king's physician, was mainly instrumental in procuring its establishment. Cardinal Wolsey, at that time Lord Chancellor, appears to have been the means through which the charter was obtained. The College was first established within the city of London. The necessity for such an institution at that time is amply shown by the preamble to the statute by which the college was founded. It runs thus: "The science and cunning of physic and surgerie, to the perfect knowledge whereof are requisite both great learning and ripe experience, is daily within this realm exercised by a great multitude of ignorant persons, of whom the greater number have no manner of insight in the same, nor in any other kind of learning. Some, also, can read no letters on the book, so far forth, that common artificers, as smiths, weavers, and women, boldly and accustomably take upon them great cures and things of great difficulty, in the which they partly use sorceries and witch-craft, and partly apply such medicines unto the diseased as are very noisome and nothing meet there for, to the high displeasure of God, etc., and destruction of the king's liege people."

Some years afterwards, besides confirming their privileges,it was further provided:

"That for making of the said corporation meritorious, and very good for the commonwealth of this realm, no person of the said politic body and commonalty be suffered to exercise physic, but only those persons that be profound, sad, and discreet, groundly learned and deeply studied in physic."

Queen Elizabeth, by another charter, authorized the society "to take yearly forever one, two, three or four human bodies to dissect or anatomize, having been condemned and dead."

In the year 1596 they prayed relief from the queen's council against the city of London for an infringement of their privileges, and obtained a precept, directed to the mayor and aldermen, "that as even heretofore they (the College of Physicians) had been discharged from all burdens and impositions to which other citizens were liable, so now at that present, likewise, they should be forborne."

About the same time, a complaint being preferred against the

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college by two persons whom they had fined for irregular practice, their privileges were further confirmed by the solemn award of the Lord Chief Justice, Popham, the most important part of which appears to be, "that no man, though ever so learned a physician or doctor, might practice in London, or within seven miles, without the college license."

The object of this institution, and of the several charters which have been granted to it, was certainly to enable the society to prevent the practice of physic by ignorant pretenders, or persons unqualified for the profession. That such an object was extremely desirable and most devoutly to be wished, can admit of no reasonable doubt; but either the authority has proved insufficient, or the means which have been employed to attain the object have been improper,for surely there is no metropolis in the world so pregnant with empirical impostors, or so afflicted with medicine, as London.

Mr. Victor Horsley, who this year is to deliver the Brown lectures before the University of London, has chosen for his subject "The Thyroid Gland; its Relation to the Pathology of Myxedema and Cretinism, to the Surgical Treatment of Goitre, and to the General Nutrition of the Body." According to the *Lancet*, Mr. Horsley states that he has produced artificial myxedema in the monkey by the removal of the thyroid gland.

Dr. Humphry, the professor of surgery at Cambridge, has been elected to a fellowship at King's College; he has also been appointed to represent the university on the General Medical Council. A project is on foot to have his portrait painted, to be presented to the university. The Regius Professor of Physic, Dr. Paget (a brother of Sir James Paget) is to be presented with a testimonial in the shape of a bust of himself, which is to be placed in Addenbrooke's Hospital at Cambridge. The bust is to be executed in marble, and subscribed for by the medical graduates and old pupils of Prof. Paget. The medical school at Cambridge is now one of the largest provincial schools in the kingdom,and has had an entry of 111 freshmen this year.

The number of street accidents occurring in London is again exciting considerable attention. Some years ago it was estimated by the police that 120 persons were killed and 2836 injured annually in the streets of London alone, and many in the other large towns. But the police returns did not include a tithe of the per-

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sons who were, at least, injured. At one hospital alone the number treated for street accidents was found to be nearly 1,500 in the year, and as there are fourteen or fifteen hospitals in London which receive such accidents, the total number must be most appalling. Only those cases are reported by the police where their aid has been called in; the greater number find their way home or to the hospitals without assistance. The majority of casualties are caused by the reckless driving of the hansom cabs and heavily laden railway vans. The police appear to be unable to cope with the difficulty of regulating the street traffic and of punishing those who, by their dangerous driving, endanger life. The aid of some society for preventing street accidents and prosecuting those who cause them is urgently required, such a society as that for the Prevention of Cruelty to Animals.

Some discussion has also been caused by the complaints of "over-pressure" in the elementary schools. It is asserted that the health of the children is materially injured by the strain imposed upon them by the excessive examinations and prolonged hours of school work. The grant for education to the individual schools depends upon the number of children who pass a certain standard; and the promising and intelligent children are forced on and given additional tasks for the purpose of obtaining these grants. The system acts most prejudicially, both on the teachers and pupils and many instances of breaking down under the strain are reported. The supporters of the education system say that the evil is exaggerated and that only the ill-nourished and badly clothed children suffer, and a proposal is made that the children shall be provided with meals as well as education at the expense of the rate-payers. As a matter of fact, it is not the neglected and badly fed children who are so over-pressed with work, but those who give the greatest promise of being able to attain the required standard by increased effort; and these are generally the sharp, highly intelligent and nervous children who have their brains so over-wrought and excited that they are often permanently injured. It is almost the universal opinion of medical men in this country that the cry of "over-pressure" is well founded, and numerous letters have appeared in the medical papers supporting this view. The production of chorea by "over-pressure" seems to be most fully recognized, and it is estimated that about 8 per cent. of such cases are due to this cause. Many of the children working for examination,

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if they do not have the chorea, are brought into a restless, irritable state which interferes much with their general health and produces headache and sleeplessness. Such cases frequently present themselves in the out-patient rooms of our hospitals, especially in those hospitals exclusively devoted to children.

The most interesting subject which has been before the medical societies lately is that of "Charcot's Joint Disease," which has been before the Clinical Society at its last two meetings and is again to be discussed at its next meeting. The subject was introduced by Mr. Morrant Baker of St. Bartholomew's Hospital, who read a paper on "Joint Disease in Connection with Locomotor Ataxy," and illustrated his paper by the histories of three cases. Several living specimens of Charcot's joint disease were also exhibited to members of the Society. Mr. Baker said that he had brought this subject before the society chiefly to raise a discussion regarding a rare and not yet thoroughly understood disease, with regard to the following points: (1.) Was the disease actually new? (2.) What were its alliances, if any, with rheumatoid arthritis? (3.) If connected with the last named disease, was its occurrence in conjunction with locomotor ataxy a mere coincidence? or did these stand in the relation, one to the other, of cause and effect? (4.) If connected pathologically both with rheumatoid arthritis and with locomotor ataxy, should not all cases of rheumatoid arthritis be considered of neurotic origin, whether accompanied or not by symptoms of locomotor ataxy? There was still another theory possible, even if Charcot's disease and locomotor ataxy and rheumatoid arthritis were all connected in pathological origin. It was conceivable that all arose from some antecedent diseased condition of which the result was expressed in pathological changes, sometimes in the cerebro-spinal nervous system, sometimes in the joints, and sometimes in both.

The discussion on the first night seemed to tend to the opinion that Charcot's joint-disease and chronic rheumatic arthritis were distinct diseases, and had no relation whatever to each other. The chief exponent of this view, in a very able and temperate speech, was Dr. Buzzard, so well known in this country as one of the great authorities on nervous derangements.

On the evening of second discussion a series of preparations were exhibited which had been sent over from Paris by Prof. Charcot, from his own private collection, to illustrate the disorder and its

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specific characteristics. Many other specimens were also exhibited. The chief points of the discussion I have selected from the reports which have appeared in the London medical journals. No subject which has been before the societies in recent years has excited so much interest as this relation between Charcot's joint affection and rheumatoid arthritis.

In answer to Mr. Baker's query as to whether Charcot's disease was actually new, Sir James Paget answered: Yes, that in general terms he considered that it was a new disease; in more especial terms, that it was a new compound of diseases. Then as to whether Charcot's disease should be called rheumatic gout, or be regarded as an example of rheumatic arthritis, seemed to be answered at once, not definitely, but that it was a method of rheumatic arthritis, and altered from its ordinary fashion by the intervention of the locomotor ataxy. It was doubtless right to say that the character of the disease as distinguished from rheumatic arthritis was that it was a wasting without repair. It might well be that rheumatic arthritis modified, by its coincidence with a disease of the spinal marrow, hindered the ordinary, however ill-directed, processes of repair seen in ordinary rheumatic arthritis. But all the common cases of partial wasting, with some new production of bone about the articular borders, brought it so near to the characteristics of some of the cases of rheumatic arthritis that one could not doubt that there was a certain relation between the two. If one took, on the one side, the whole range of joint affections in locomotor ataxy, and, on the other, the whole range of joint affections in rheumatic arthritis, it was impossible not to see that cases could be found in which it would be hard to say when one looked at the pathological specimen to which class of cases it belonged. It might justly be suspected that the locomotor ataxy and diseased joints were really an example of chronic rheumatic arthritis, so called, occurring in a person with a special tendency to disease of the spinal marrow.

Dr. Ord did not wish to push forward his idea of a neurotic process being necessarily present in all cases of rheumatoid arthritis; but he did recognize that in the case before the meeting, and in many others, there was strong evidence of a neurotic influence, direct or reflex, being the main, if not the actual, agent.

Prof. Humphry quite agreed with Sir James Paget in considering it a compound affection between those old diseases, called rheu-

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matic arthritis, and tabes dorsalis; that it was the combination of the wearing away with the nervous affection. Refering to a living specimen which Prof. Humphry had brought from Cambridge and in which tabes dorsalis in a woman had been going on for only about three months, the whole of the head of the tibia was actually gone, and the rough upper end of the shaft was exposed and lying upon the articular surface of the femur.

Mr. Jonathan Hutchinson thought that in all probability this disease had some connection with the causes which produced ordinary rheumatic gout, though he was also inclined to associate it very much with senile changes and with conditions in the nervous system which induced a partial condition of anesthesia; at any rate, inability to perceive pain. His argument was rather this, that locomotor ataxy in some of its forms resembled a sort of tumultuous old age, an old age of premature senility of the nervous system, and that the conditions at any rate were alike in this, that both in senility and in locomotor ataxy there was a very remarkable loss of sensation, so that the person who suffered from an inflammation did not experience anything like the amount of pain which would have occurred supposing the nervous system to have been in a condition of health. In applying this suggestion to the explanation of the phenomena of the joint in locomotor ataxy and Charcot's disease, he would fully admit that no abrupt line of demarcation could be drawn between the pathological appearances met with in Charcot's disease and the pathological appearances met with in rheumatic arthritis, in cases in which any suggestion of ataxy was entirely excluded. But, in typical cases of the two forms, the differences were very great indeed: and certainly he had never seen in connection with rheumatic arthritis any approach to the extreme cases of which there had now been a considerable number in locomotor ataxy in which a patient might have one, two or three joints the bones having become dislocated, in which those bones had been very much altered in shape, in which they could be pulled into shape and pushed out again without giving the patient pain or inconvenience. He said he had never seen anything approaching that in any other disease than locomotor ataxy. He thought that very likely a general failure of nerve power had something to do with interfering with the nutrition.

In answer to a question, Sir James Paget further said that he rather thought that the nervous system had in itself, by whatever

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morbid conditions might be found in it, a power of actually determining disease, not merely of permitting disease to go on unchecked when such disease arose from other causes, but that it had in itself a definite power of producing disease in this or that part.

Mr. Hulke of the Middlesex Hospital looked upon Charcot's disease as a chronic rheumatoid arthritis. But then the nature of the association had to be considered. In answer to Mr. Baker's question, was this an accidental, or was it a causative connection, or did they both stand in relation to some third as a cause, Mr. Hulke's impression was in favor of the latter. The relation of the disease with syphilis had been for a long time passing through his mind. There could be no doubt that a very considerable proportion of tabetic patients were males who had had syphilis. He would not wish to state positively that he was convinced that syphilis was at the bottom of both; it might be, or it might not; but he thought this was a hint which it might be well to follow up, and endeavor to elucidate as far as possible. E. V. A.

STANDARD DISINFECTANT.—Dr. Geo. M. Sternberg suggests the combination of the permanganate of potassium with the bichloride of mercury for common use as a disinfectant and deodorizer for the purpose of disinfecting sputa of diphtheria or tuberculous patients and liquid feces of cholera, typhoid fever, etc.

The intense color of the permanganate would be a safeguard against the solution being accidentally drunk and at the same time this salt has decided deodorizing power while at the same time the stronger disinfectant properties of the mercuric salt would be utilized.

He suggests a solution of two drams of each of these salts in a gallon of water as an appropriate strength for domestic use.—*Med. News*, Jan. 10, 1885.

G. P. PUTNAM'S SONS will publish early in the new year a Monograph on the New Anesthetic, entitled, "Cocaine and its Use in Ophthalmic and General Surgery," by Dr. H. Knapp; and a treatise, entitled, "Acne and its Treatment," by Dr. L. D. Bulkley, a practical treatise based on the study of over 1,500 cases of disease of the sebaceous glands.

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COMMUNICATIONS.

STATE BOARD OF HEALTH.

Mr. Editor—It is time to say something of the State Board of Health. Since its organization, though there is well nigh universal dissatisfaction in the medical profession with its operations and its results, yet nothing, or almost nothing, has been said about it either in the medical or the secular press except to apologize for it and to charge its shortcomings to the law under which the Board is presumed to act, and to point to the alleged beneficent results obtained by the much advertised Board across the river. Thus in your editorial on page 35 of the January number of this journal you say that the failure of our Board to accomplish as much as that of our sister state is to be excused in part because "the members of the profession through the state who claim to be law-abiding citizens and to desire the advancement of the profession, have not given to the Board of Health the hearty support and assistance in carrying out and enforcing the law that the Board had a right to expect of them." Pray, what has a law-abiding citizen to do with the law, except to obey it? The private citizen cannot enforce it. That is the function of the Board, which alone has authority in the matter. It is not in order for it to plead the baby act, and to seek to saddle its shortcomings upon those who have no authority of any kind to do anything about it. But they expected "support." It seems to many of us evident that if the Board had been as diligent in intelligently seeking the "advancement of the profession" as they have been in seeking "support" they would have deserved it more.

The fact is that the members of the profession have not been disposed to accord support to measures until adopted, or to acts until performed, or to authority until they knew something

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of the manner of its exercise. Especially when of the Board it would be sheer affectation to say that it so represents the profession of the state, that "support" could fairly be demanded in advance.

. You admit in your editorial that "the law may be interpreted to mean that physicians who have practised for five years in the state are wholly exempt from the action of the law," yet you say, "It remains true that the published interpretation of the Board of Health was that all physicians were by the law required to register in the office of the Board, but those who had been engaged in the practice for five years were relieved of the requirement to submit their diplomas for inspection." Certainly a sage interpretation when the law explicitly states that—*this act shall not apply to any person who has practised for five years in this state.* Yet physicians are denounced by the Board when they do not register under a law which does not apply to them, when they are not required to register, when they have no authority to register, and when the Board has no authority to register them. If the public prints are to be believed, one of its first acts was to seek from the Attorney General an opinion that the above quoted clause does not mean what it says, and that the Board of Health has authority to require all to register notwithstanding that exception and exemption. And they still declare as much in their pamphlet, though the Attorney General was of the opinion that black is black and white is white.

The writer of this letter is one of those who believe that there is no historical ground for the opinion that any profession ever was or can be improved in character, ability, standing, reputation or public appreciation, by being hedged about by legislative barriers, or that the public was ever so protected or benefited, that no law can produce learning and integrity on the one hand, or sagacity and good sense, on the other; that divine and human government, the philosophy of history, the experience of mankind, all sociological science, and the nature of things, all concur in teaching the same old lesson that "progress" and "advancement" are best promoted by the largest liberty of individual action, and by every one being left to the consequences of his own acts, and his own foolishness; that while it is a legitimate exercise of sovereign power to protect the weak against the strong, that does not imply the protection of the weak and

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foolish against themselves; that in all ages and in all places the medical men—like all other men—have been estimated on a large average very much as they have deserved to be, and that they will so continue to be; that the great and universally recognized improvement in the ability, character, efficiency and standing of the medical profession throughout the civilized world in the last century has resulted not from causes without but wholly from causes within, and not at all from governmental interferences; that the outcry for medical legislation, which seems to be travelling over the country like the late epizootic, is altogether unphilosophical and futile, and will result in nothing but vexation and disappointment.

So believing, we do not cry, Hosanna! to the Board of Health. We will obey the law and hope for good results, but we are unwilling to be called law breakers for not doing what the law does not require, and for which there is no apparent good reason, for not submitting for "verification" our diplomas to a body of men, some of whom could not tell a (latin) diploma from a death warrant. Of course we have no reference to the sanitary duties of the Board of Health.

These are their legitimate and proper functions. Here there is protection needed; the weak against the strong. Here a man cannot save himself from his neighbors; hence it is proper to invoke the law.

Yet we have seen nor heard nothing from the Board on that subject save a circular in which they advise county courts to confer on an officer unknown to the law powers not possessed by the court, the Board of Health, nor by the Legislature itself. T.

[While we do not agree with the position of our correspondent in all respects, as our readers are aware, we gladly publish his comments. However the Board of Health may have failed so far, there is much that it can and should do. Let us exert all the pressure possible to secure better work.

The Board of Health should not be abolished but in some respects should be reconstituted. We hope that as new appointments are made the Governor will select men who more truly represent the best elements of the profession than is the case with some of those now in the Board; and that the work done in the next two years will be such as to disarm adverse criticism and make our Missouri State Board of Health one that we can take pride in. ED. COURIER]

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QUININE AS AN ANTIPYRETIC.

Editor Courier: It has been well established, that quinine is a valuable and effective antipyretic, the rapidity with which it acts being often marvellous. No one who has not given this drug in antipyretic doses in typhoid fever, where the temperature is exceedingly high, say from 105° to 107°, and the delirium violent, can properly appreciate it; for in such cases, patients will generally, within an hour or two after its administration, fall into a sound sleep, and the temperature be reduced to 102°—103°. Charming as the result is, as a rule, there are some exceptions, and in the following I desire to report a few cases from my practice, which will serve to show that there's some risk in administering quinine in such heroic doses and that it should therefore be given with care as an antipyretic.

Some years since I treated a negro, æt. 42, for pneumonia. The temperature one evening rose to 105°, and I administered 25 grains of quinine at a dose. A few hours after taking it he became maniacal, and several persons were required to keep him in bed. Gradually he fell into a comatose condition from which he never awoke. As this is not the usual manner in which pneumonia terminates, there can be but little doubt that the medicine hastened his "removal." In August, 1883, I was summoned to see a girl, æt. 14, during a paroxysm of intermittent fever in which the temperature rose to 106°. I gave her immediately 20 grains of quinine, and one-half hour later 10 grains more. Shortly after taking the last dose she lapsed into a somnolent state, from which she could not be aroused. After remaining in this comatose condition for several hours she awoke and commenced to perspire profusely. She recovered without any further unpleasant symptom, and she had no other attack of the fever.

On July 15, last, I was called to see A. M., æt. 36, who had remittent fever. I found him with a temperature of 105½°, and pulse 100. I gave him 20 grains of quinine, which dose was repeated an hour later. The next morning his temperature was reduced to 102½°. He was very deaf, however, and complained of considerable tinnitus aurium. Quinine was continued, about 24 grains *per diem*. The next day the temperature was almost 100°, pulse 80. Patient imagined music in the distance, and looking at the leaves of the vine on his window, he saw them develop a variety of pictures and faces. Although the quinine was discontinued, his condi-

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tion became constantly worse. The sounds which he at first heard at a distance came nearer; everything in the room seemed to him to move in harmony with the imaginary sounds, and he became restless and excited. This condition of affairs continued till he became absolutely *non compos mentis*. During the night he arose and en deshabille visited his neighbors, causing quite a sensation. I was sent for in haste and had some difficulty in getting him to bed. Patient had a normal temperature and pulse of 80°. After giving him a large dose of bromide of potassium and hydrate of chloral he fell into a profound sleep. Several days elapsed before he became entirely rational again. These peculiar symptoms developing in an ordinary case of remittent fever, after the fever had almost entirely subsided, I do not hesitate to ascribe to the large doses of quinine which patient took, although I will admit that it is strange that it should produce such effects, and that the same should be continued for so long a time after its administration.

Respectfully yours, H. H. VINKE, M. D.

7, S. Twenty-First Street, St. Louis.

NOTES AND ITEMS.

AMERICAN CLIMATE.—It is manifest that one must pay more attention to adapt himself successfully to the extreme features of a great continental climate like ours than is required in the comparatively uniform climate of England or Ireland. But it is equally true that malaria, damp soil and damp houses, due to defective drainage, are deadly but avoidable foes to health. And it is certain that communities where, from earliest boyhood, the excessive use of tobacco in the most injurious forms is general, where bad whisky is a staple drink between meals for the men, where for all alike, men, women and children, reeking strong tea and coffee in unlimited quantities are consumed at every meal, while beyond all this the reign of the frying-pan and the soda baking-powder and the patent purgative pill is universal and undisputed, can not be fairly expected to perpetuate the finer types of manly or womanly physique: and I repeat my opinion that it is to these latter influences that we are chiefly to attribute most of the physical pe-

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culiarities commonly assigned to the American climate. I believe myself that, with due regard to the conditions under which work must be prosecuted here, it will be found that there is no more favorable climate on earth, and I appeal to your observation of the generations now rising in support of the prediction that, with the correction of what may, and surely will, be corrected in our average physical vigor, even if a complete reversion to our ancestral type is not attained, there will be developed a new type, in no way inferior.—*Dr. Pepper's address before the Med. and Chir. Fac. of Md.* 1884.

REFERENCE HANDBOOK OF THE MEDICAL SCIENCES.—Messrs. William Wood & Co. have issued an announcement to the profession of the advanced state of preparation of a work which they have had under way for several years.

Arrangements have been completed and so much progress has been made that they now promise to issue the first volume at an early date.

The editor is Dr. Albert H. Buck, who has already demonstrated his ability in such work in editing the admirable work on Public Health and Hygiene published a few years ago by this same energetic publishing house. Dr. Buck has further demonstrated his ability as an editor in the selection which he has made of writers in the different departments, among whom we find the names of some of the ablest specialists, general practitioners, teachers and writers in the country.

There are to be eight imperial octavo volumes of about eight hundred pages each printed in double volumes with type as small as is consistent with easy reading by persons of ordinarily good eyesight.

The price will be six, seven or eight dollars a volume according as the binding is cloth, leather or turkey morocco. The volumes are to be issued once every three months.

There is no doubt that this work will have a large sale all through the country.

AMERICAN SOCIETY OF PUBLIC ANALYSTS.—An organization has been effected under this style and the officers for the coming year are at follows. Prosident, Dr. E. H. Bartley of the Brooklyn Health Department; Vice-President, Dr. Cyrus Edson of the New

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York City Health Department; Recording Secretary, Prof. E. W. Martin, Assistant Dairy Commissioner of New York; Treasurer, Dr. Wm. K. Newton, Milk Inspector of New Jersey. About twenty members were present.

THE ARCHIVES OF MEDICINE was discontinued with the December issue. This journal which was most ably edited by Dr. E. C. Seguin and most handsomely published by Geo. P. Putnam's Sons was one of the most valuable journals on our list and we re-regret very much that it will no longer be found on our table. The reasons advanced are the continually increasing disposition of writers and readers to give the preference to journals of more frequent sppearance.

THE NEW YORK DISPENSARY has adopted a new policy. Three attending physicians are to be chosen by competitive examination who are to serve three or four hours a day and to receive a salary of $800 per annum.

DR. HENRY A. MARTIN, of Boston, died December 7, 1884, at the age of sixty. He was the originator of the rubber bandage which has been so much used of late years in the treatment of ulcers and various other affections.

He was most widely known in this country as the first man to practice and advocate the use of bovine virus in vaccination and as one of the most successful propagators of bovine virus.

MALT EXTRACTS AS FOODS,—J. MILNER FOTHERGILL regards malt extracts as not only valuable by virtue of their diastasic properties in assisting the digestion of farinaceous food, but as a most useful form of food where the digestion is seriously impaired whether in infants or adults. In some cases where the stomach is exceedingly irritable or its function is impaired by malignant disease nutrition may be maintained by the use of malt extracts.

He commends the foods prepared by the malting process, e. g., Mellin's food for infants and Liebig's malted food extract, the former being much the more palatable, as being serviceable for dyspeptics as well as for infants, especially when used with milk. He notes also the advantage of the prepared foods in which flour is subjected to a high temperature and so the digestibility increased —*Practitioner*, Nov. 1884.

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OBITUARY.

SAMUEL M. BEMISS, M. D.

Samuel M. Bemiss, M. D., was born in Nelson County, Ky., October 15, 1821. He received his early education through private tutors. He commenced the study of medicine in the office of Dr. S. Merrifield in his native village of Bloomfield. He graduated from the Medical Department of the University of New York in 1846. After practising in Bloomfield and the surrounding county for seven years he removed to Louisville and five years later was appointed Professor of Clinical Medicine in the University of Louisville, the following year being transferred to the chair of hygiene and medical jurisprudence, and a few months later to that of materia medica and therapeutics.

During the late war he served in various medical positions in the Confederate army. At the close of the war he returned to Louisville and within a year was appointed Professor of physiology and pathology in the University; but in a few months was elected to the chair of theory and practice of medicine and clinical medicine in the University of Louisiana, and removed to New Orleans in 1866. He held this position till the day of his death, one of his last acts being to deliver a lecture to the medical class, his subject being "Apoplexy Associated with Affections of the Heart." He had complained that morning of having some disturbance of the heart's action. Going home about an hour after his lecture he was persuaded to lie down. At 5 P. M., he dictated a letter to a professional brother, and in a few moments suddenly his respiration became disturbed, then interrupted and soon ceased. This was November 17, 1884.

He was an able teacher, a skillful and successful practitioner and indefatigable worker, a thoroughly faithful and conscientious man.

Dr. Bemiss was an active, earnest working member of the National Board of Health. He was an excellent writer, contributing frequently articles of great merit to our medical literature, most of them appearing in the *New Orleans Medical and Surgical Journal*, of which he was for a number of years the senior editor.

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ST. LOUIS.
COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

ON THE COURSE AND DESTINY OF POPULATION INFECTIONS.

BY GEO. HOMAN, M. D., ST. LOUIS.

[*Read before the St. Louis Medico-Chirurgical Society, January 27*, 1885.]

IN his general observations on the course and causes of the plague in the fourteenth century, Hecker[1] says:

"That Omnipotence which has called the world with all its living creatures into one animated being, especially reveals himself in the desolation of great pestilences. The powers of creation come into violent collision; the sultry dryness of the atmosphere; the subterraneous thunders; the mist of overflowing waters, are the harbingers of destruction. Nature is not satisfied with the ordinary alternations of life and death, and the destroying angel waves over man and beast his flaming sword.

"Were it in any degree within the power of human research to draw up, in a vivid and connected form, an historical sketch of such mighty events after the manner of the historians of wars and battles, and the migrations of nations, we might then arrive at clear views * * * and the ways of Providence would be

1. Epidemics of the Middle Ages, Sydenham Society, 1844.

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more plainly discernible. * * * All this, however, takes place upon a much grander scale than through the ordinary vicissitudes of war and peace, or the rise and fall of empires, because the powers of nature themselves produce plagues, and subjugate the human will, which in the contentions of nations alone predominates."

The consideration of the infectious and spreading ills that have ever more or less actively beset the life of collective man has been a theme of absorbing interest from times most dim and ancient; and the pages of written speech contain no more moving and graphic narratives than those wherein are described and set forth the advent, the agony and fatalities of destroying epidemics amidst sparse or thronging populations. The descent of the plague upon a supine or preoccupied people was likened to the falling of rain from heaven; and the prophecy concerning a numerous people that "their dead bodies shall lie in the streets of the great city," expressed the extremest mortal ill that could be visited upon man by sweeping and pitiless infection. Or, again, "To the great city that thought it would sit as a lady forever, there came in one day widowhood and loss of children," are the striking words that tell of the self-complacent negligence, and the surprise and swift desolation of an ancient and opulent metropolis.

Not decimation merely, but depopulation and desolation more than once in earlier times marked the course and termination of pestilential sojourns over inhabited areas of very considerable extent. The movements and migrations of population were then but slow as compared with present times—the losses sustained in human life being made good with difficulty, as the mention or memory of the horrors and bitter experiences of such scenes and occurrences, and to which were commonly added the miseries of extended famine, served to retard and make dubious speedy and efficient recuperation through immigration or natural increase.

That the violence and vitality of human infections, and the viability of epidemical disease was greater then than now is conclusively shown by ample and competent testimony reaching back through many centuries; and the specific agencies whereby they

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operated are now so weakened, comparatively—unless specially circumstanced—that epidemiology and pathology scarcely recognize to-day in the wasted and fading semblances of certain diseases the dreaded instrumentalities that once were armed with power to scourge and slay unhindered throughout cities and provinces, and even continents and hemispheres entire.

The histories alike of medicine and mankind present the instructive spectacle of diseases dead or overthrown, and wasted and expiring infections; and nothing can more impressively convey the lesson of the changes wrought by time and prevailing associated influences upon types and forms of life than this most certain and salient truth.

The beginning, duration and ending of infections depend clearly upon physical influences, and their variations and movements, however accidental, phenomenal or erratic they may seem, are yet controlled in orderly sequence by determinate laws that hold equable sway throughout all animate nature. Deriving their impetus and power to harm from the minutiæ of quickened organic nature, the study of the fauna and flora of microscopic life becomes at once a subject of deep and absorbing interest; for, by unfailing natural law it seems ordained that in their career the lowest shall be the life dependent or adjunct of the highest—that the humblest link in the living chain shall surely touch and unite with the most exalted to complete the circle of animate existence. The life procession of these plastic and protoplastic forms and phases of organized matter is conjoined with that of man, within whose vital economy they find their appointed range, sustenance or abode. There the decrees of their being are fulfilled, and there they round out and justify the mission of their existence. Their design, domain and destiny, as merely abstract subjects of study, are inviting alike to pathologist, naturalist and physiologist; while their animus, their energies and capacities as causes of far-reaching movements hurtful to the health, or fatal to the life of man possess a personal and immediate interest to every living human being.

The observant, shrewd good sense of mankind divined the living, material basis on which infections rest, and from whence

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they derive their hurtful powers, long before science accepted this belief as fact, and before any perfect demonstration of its truth was possible; and this conclusion was reflected in the every day language of the people, "nests and seeds of disease," "breeding places of infection," "nurseries of fever," "hot beds of pestilence," "plague spots," and like phrases all in common use, expressed the general conviction that plagues and pestilences, domestic and foreign, had their origin in and derived their activity from living forms of matter that were quick to respond to exciting and favoring local influences.

Why the resources of disease should fail and infections show a declining power is pertinent to the present purpose, and while the subject is too vast for a complete exposition of the process to be attempted, and, indeed, may as yet be impossible, still some note taken of the workings and mutations of nature in analogous and collateral, but more openly declared directions, may serve to throw some light on this, as yet, somewhat obscure subject—only the briefest reference, however, to a few of the leading facts in this connection being here possible.

It being granted that epidemic maladies have their essential and influential sources in the bodily forms and entities of microscopic life, and that these in their continuance through successive generations, and the transmission of their fundamental qualities of group, species or breed, are influenced, shaped and determined by their treatment and environment, then the only further admission required is that they are likewise subject to the operation of a general law observed throughout nature, and which is not invalidated by application to even the lowest forms of life.

Absolute dominion of physical agents over organic forms is declared by high authority to be the fundamental principle in all the science of organization; and that living forms in the manner of their development depend altogether on the circumstances to which they are exposed. So long as these are the same the resulting form will be the same, and so soon as these circumstances differ, the resulting form differs too. With difference in form come necessarily changes in function, aptitude and in parental or hereditary entailments.

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The experience had in the domestication, cultivation and raising of animals and plants shows in a striking manner the effect of careful selection, breeding, surroundings, etc., in developing desirable and overcoming objectionable features or qualities in breed or species subjected to such treatment. Careful observation and experiment show that this holds equally good with the lower forms of life, and that in feature and function the individuals thereof breed as true to type as the higher ones, and that successive generations are modified by the conditions in which they are placed, abundant nourishment causing rapid and efficient reproduction, while starvation will restrict the increase as well as weaken the vigor of the brood.

The quality of generative prepotency, or the power to closely transmit to descendants ancestral characteristics, is marked in beasts and plants in a state of nature, being especially so in wild animals; but it is capable of acquisition in domesticated strains, and may be fixed by long continued breeding to a given desired type; and when attained, the esteemed qualities are perpetuated in the offspring with occasional flaws, reversions, and variations through continuous successive generations. Or, a prepotent individual may unexpectedly appear of unusual excellence—or the opposite—in many points, whose descendents will be strongly impressed with his distinguishing desirable or ignoble qualities. Growers and breeders of stock have long more or less perfectly understood and taken advantage of the opportunities afforded by the laws of heredity and prepotency, and have shaped and modified in strain and breed the characters and features of their flocks and herds by the selection of progenitors with a careful reference to the securing of desirable qualities of form, fibre, fleece, flesh, etc. The fierce, the wild, the coarse, the weak or the noxious instincts and characteristics of ancestral types have thus, by judicious selection and intelligent care, been eliminated, and milder, useful and profitable qualities have been impressed instead upon their progeny.

But, marked as acquired prepotency may be, it may yet disappear and be lost as a result of causes operative either from within or without, close breeding even, and in-and-in breeding certainly, sometimes resulting in its extinguishment; fertility

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between relations ceasing, although the existing individuals may be in appearance the most perfect of their kind. As these artificial types, however stable they may seen, may be lost through lack of care or otherwise, so the untamed or untamable aboriginal and most markedly prepotent species may be forced to extinction by adverse conditions as of food and climate, or by the relentless pursuit of natural enemies.

In former times the unsparing vigor and wide extending power of diseases which still claim recognition amounted to inherent prepotency of their organic causes, there being a swiftness and deadliness marking their course unknown even in the worst epidemic of modern times among civilized peoples; and a review of the history and course of population pestilences, with due note taken of the progress and influence upon them of time and civilization, shows not a few resemblances between the manifest lessening of their destroying energies, with the attendant exhaustion or subjection of their living causes, and the results observed in the domestication of species and individuals derived from the animal or vegetable kingdoms of wild or primitive nature.

The virtual if not actual extinction of some of the more violent and fatal forms of human disease, together with the gradual visible weakening of others, clearly shows the past and present trend of population poisons, and the value and efficiency of measures intelligently designed and applied for the protection of population health.

In a public health sense the measure of civilization in a given community is the degree of elevation in the personal and domestic habits and environment of each individual; and, more especially, that of the aggregate personnel of the indigent, the negligent and the toiling classes, for it is in the midst of these that infections most commonly find all the requisites of prolific and typical development. The advance of civilization is marked by a growing regard for the moral and physical welfare of these classes, and in proportion as their housing, food, drink, clothing and the ultimate details of their domestic life are bettered, in just that degree is pestilence forestalled and denied the conditions amidst which it most readily feeds and breeds.

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The struggle of mankind along the path of enlightenment and progress has been marked by a corresponding decline in the power of disease—a wide and very general slaughter having been the rule rather than the exception in earlier times, while now sweeping epidemics are exceptional, save among the semi-civilized or savage, and their mortality is comparatively slight.

The reasonable explanation of this may be found, it is believed, in the fact that mankind, through the arts, aids and appliances of civilization has, unconsciously often and usually in a blind, uncertain, imperfect way, produced effects upon the active causes of his peculiar infections analogous to those observed in the taming and subjection of original forms of animal and vegetable life. For, as these minute living bodies or energies are the outcome and expression of special determining conditions, then, agreeably to the laws of evolution, when the conditions which gave them birth and maintained their identities are withdrawn or altered, the character of the offspring changes too; and if, by reason of favoring circumstances of soil, season and environment, these in their begetting and growth are certain of purpose and ample in power to fatally touch the life of collective man, then plainly his first instinct and most immediate and pressing concern would be to discover and apply every measure that is capable of attacking, deranging or removing these specific and dangerous conditions.

To systematically and continually deny to morbid organisms all favoring circumstances amidst human populations, to thwart their purpose and disarm their power, to cut them off from the means of living and starve them to extinction, or to breed such types, benign in character, as will supersede and protect against the [original and injurious ones, are now the conscious and avowed aims of the highest human intelligence and civilization.

As the plagues of antiquity are now scarcely known save in history, so the destroying epidemics of the middle ages, such as leprosy, syphilis, measles, typhus and small-pox, have yielded their fatal energies, and now retain scarcely a tithe of their former aggressive malignity amongst civilized peoples.

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An accidental clue, laboriously followed up and skillfully developed, led to the discovery of protective vaccination, and the resulting conquest of a disease which, previously, was more disastrous to human kind through death and disfigurement, than all the wars waged by man during the same period of time—excessive as even such losses were. Ultimately and in effect the vaccine culture and process is simply the domestication and close breeding of a certain disease entity, as is practiced upon animals and plants, reversions to the original type being observed as with them, while in-and-in breeding results in infertility, the acquired prepotency of the benign organism being thus weakened or lost; and, without taking account of susceptibility, soil or medium of culture and other factors in the case, hence follow the abortive, atypical or negative vaccinations not infrequently observed.

Although scurvy may not properly be classed with infections, still its chief factors are bad air, bad food and bad surroundings; and while scarcely known now was, prior to the two generations past, for centuries present in almost every ship, jail, workhouse and hospital and in many private dwellings throughout the civilized world. By statistics, whose accuracy may not be questioned, it is shown that during the last two centuries the deaths from scurvy in the British Royal Navy exceeded in number all the fatalities from battle and wreck and other casualties of seafaring life; and this, too, in times when every maritime nation that could sail a ship or fire a gun was sooner or later at war with this power, and when sea-fights and blood-shed were events of the most common occurrence. Such was the havoc wrought by this one dreaded affliction, a death from which is now unknown, and which now finds scarcely a place of lodgment in all the world. And this result was brought about simply by increased enlightenment as to its causes, and a little practical care and forethought in the way of prevention.

Typhus was the close companion of scurvy, and like it has faded from sight as a palpable factor of mortality. The plague,[1] with

1. Hecker says that in the course of the Black Death in Europe,

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all that the term comprised in variety of morbid features, has also passed away. Measles, which two hundred years ago was as fatal as any disease known to present times, has been brought to a type so mild as often to be scarcely recognized. Leprosy, which during the middle ages and from earliest times claimed kings and beggars alike among its victims, now reduced to a shadow of its former self, lingers precariously in a few of the by-places of the world. Syphilis retains none of the malignity that once marked its course, a death from its sequelæ even being now infrequent.

Clearly the age of population infections is passing away; for, though certain spreading diseases still survive to swell the mortality reports, yet their power is visibly decayed and surely wan-

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chiefly during the years between 1347 and 1351 there was a mortality from this cause alone of nearly 25,000,000 persons, this estimate being the lowest made by trustworthy authorities of that age, and was the result of a careful examination of all attainable documentary evidence of the period named made by the author mentioned.

The ratio of mortality to population was the same as if 15,000,000 deaths from cholera should occur in this country during the next three years. A report made by order of Pope Clement showed 23,840,000 deaths from the plague in Asia, exclusive of China. Many districts and cities were depopulated, and often only one person in ten was left alive. Italy and France were terribly scourged, while Germany lost more than 1,200,000 lives in three years, the visitation being regarded as a rather light one, although during the entire course of the plague, the Franciscan friars throughout Germany alone reported a loss in membership of 124,434, while the Minorities in Italy lost 30,000.

Such was the deadliness of the infection that many died without a visible symptom, and vast numbers within twenty-four or forty-eight hours of attack. Unburied corpses lay in the fields, roads, streets and houses, and ships were often seen driving about in the Mediterranean and North Seas and drifting ashore with only the dead on board, the crews having perished to the last man.

In England 100,000 deaths at least occurred in London, and in Norwich 51,000. In France, Paris lost 50,000, Avignon 60,000 and Marseilles 16,000 in one month. In Italy, Venice lost 100,000, or three-fourths of her population, and Padua two-thirds of hers. Florence lost 60,000 and Siena 70,000. At the height of the disease in Vienna 1,200 died daily, while in the Levant, Aleppo lost 500 per day, Gaza 22,000 in six weeks, and during its deadliest prevalence in Cairo a trustworthy observer estimated the daily death rate at from 10,000 to 15,000.

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ing. The tendencies of the times in the way of perfected drainage, which means cleanness and dryness of soils, cities and houses —every movement to get pure water in a more abundant supply, every effort to dispel darkness and damp by the letting in of sunlight and fresh air, every attempt to blight or poison by chemical means the living agents of infection, everything done to make cheaper and better necessary articles of food, drink or wear—in a word, every measure and endeavor in this direction tends to destroy the prepotency of plague breeders, and is a blow aimed at the sources and lives of organisms from which come not only the sweeping infections that may traverse the world, but also of the creeping infections that wait on unclean surgery and midwifery; and which still inhabit badly kept prisons, hospitals, tenements, sleeping rooms, closets, basements and the like places.

Any hypothesis that regards infectious diseases as being other than the outcome and evidence of stir and activity among miniature, definite forms of life and being, fails to account for and explain all the phenomena observed; but with increasing knowledge man has the assurance of ability to control fully the causes and circumstances of their generation and development.

The manifest course of infections coming from without, and which tend to spread widely and fatally, is in the direction of gradual and sure mitigation, in this respect keeping step with the advance of true enlightenment, and their destiny then is naturally toward final extinction; and, provided that the conditions that brought them into being and enabled them to live do not recur through negligence, and, provided further that new forms of spreading disease do not arise to take their place, then mankind in the future will have little to fear of evils to health save from those which are entirely home-bred, and which tend to domestication within his own doors.

It being evident that a number of the specific causes from which proceed epidemical impulses have been and now are greatly curtailed in their power for harm, and that others again have become to all purposes extinct, then this result and the manner and means by which such saving in human health and life was brought about becomes a matter of interest and congrat-

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ulation to all; and, if the progress of time and civilization has shown, and still shows, a steadily increasing avoidance, removal or mastery of the causes of danger to human health, then this fact and deliverance constitute a triumph of human effort and intelligence over physical evil, and it may be justly claimed that men do hold largely in their hands the issues of life and death to the great body of their fellow men.

And the increasing consciousness of this knowledge and power, together with the growing general enlightenment upon public health matters, have caused mankind to depend less upon Providence than on themselves for protection; and the disposition to do this is becoming so strong that it is not unlikely in the near future that it will become a settled principle of law, and be made a part of such by statutory enactment, that municipalities shall be held responsible in actual if not exemplary damages for losses to business interests directly caused by epidemics of avoidable diseases, and which diseases were introduced or permitted to spread by reason of ignorance or lack of diligence on the part of the officials or agents of such municipality in refusing or neglecting to take the necessary plain, effective and proper steps to prevent the introduction and stop the spread of such disturbing or fatal epidemics.

DERMOID CYSTS OF THE OVARY.

BY T. F. PREWITT, M. D.

[*Read before the St. Louis Obstetrical and Gynecological Society.*]

THE origin of dermoid cysts forms a perplexing problem in pathology. No theory has yet been broached that is wholly satisfactory. There can be little doubt that they are coexistent with the life of the patient.

Several different hypotheses have been suggested to explain the origin of these curious aberrations.

Cruveilhier proposed two theories:

1. That dermoid cysts are the remains of an extra-uterine ovarian conception.

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2. That they are developed in consequence of a *fetus in fetu* by inclusion.

A third theory has been advanced, viz., that dermoid cysts are due to a hyperechetic development of an ovum in the direction of parthenogenesis.

Yet another theory may be offered, that in the process of embryonic development an inclusion of a bit of the external or upper germinal layer takes place and, blended with the middle layer from which bone muscle and nerve are formed and endowed with the active formative force which marks this period, gives rise by a process of differentiation to any or all the products which normally may develop from these layers.

So far as the first of these theories is concerned, it was according to Dr. Lee universally accepted as the correct one until the time of Dr. Baillie. Now it may be said there is no one who advocates it. So palpable are the arguments against it that it seems needless to discuss them. It is sufficient to say that these cysts have been found in young children, in virgins, and in males, rendering the theory of impregnation wholly untenable.

Their origin by inclusion has been the most popular, as it is the most plausible theory advanced by embryologists in explanation of the phenomena. This supports the attempt upon the part of nature to form two fetuses at the time of the impregnation of the mother of the cyst-bearing patient, in one of which the growth was arrested, and in the other proceeded to full development.

This could only be possible in those cases of transformation where fissiparation of a single ovum is the mode of development. But, as pointed out by Mr. Tait, it is a law of teratology that any union of fetuses under such circumstances, whether blighted or fully developed is formed by attachment of symmetrical and homologous structures, as in case of Siamese twins and the Millie-Christine monstrosities.

So far nothing has been observed in any case that approached a compliance with this law.

Again, there is nothing in teratology to warrant the conclusion that such union or blending would take place in

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the ovary more frequently than elsewhere. Yet statistics show that dermoid cysts are found in the ovaries in an immensely large proportion of cases (128 in 180, Lebert). Such statistics alone render the doctrine of inclusive *fetus in fetu* infinitely improbable. This doctrine is supported by Velpeau, Gross, etc.

The third hypothesis is advocated by Mr. Tait in his work upon "Diseases of Women." It assumes that the true solution of the phenomena of ovarian tumors which contain such structures as teeth, bones, cartilage, striped muscular fibre, brain and nerve tissue, "can only be found in a hyperechetic development of an ovum, a cell which has in it the power of formative origin of all these structures."

It may be supposed that the ovum contains the origin buds of the various tissues of the body which only need the fusion of the male germ to stimulate into activity the formative force which determines their development into definite organs with definite functions. Lacking this stimulus the ovum may take on, nevertheless, a hyperechetic action, independent of impregnation, which results in development of rudimentary structures.

In support of this theory certain facts in regard to the partial development of the unimpregnated ova of frogs have been brought forward, as showing the possibility of such an occurrence in vertebrates, while the development of certain insects, especially the aphides, through successive generations, without any copulation, and, indeed, according to Huxley, without any generative system is pointed to as the type of which these cysts are but the abortive imitations on the part of the human ovary. This process Prof. Owen called parthenogenesis, holding that the male sexual influence was transmitted from one generation to another. The analogy, however, does not hold good, since M. Balbiani, a distinguished naturalist, has stated as the result of his investigations that these sexual or virginal aphides are true hermaphrodites. With this vanishes all support from an analogy in this direction.

As essential to this theory of imperfect parthenogenesis it must be shown that these tumors are found only in the ovary or in situations where an ovum could have readily lodged after its displacement from its bed.

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Recognizing this fact, Mr. Tait has drawn a distinction between those cysts found in other parts of the body, especially about the orbit, which have a somewhat similar structure and the dermoid cysts of the ovary. He has not been able to find any mention of these cysts in other parts of the body, containing anything but purely epithelial products, such as hair, dead epithelial, cells and fat,"while in ovarian cysts "the variety of products is so great as to put all analogy between them and inclusive cysts out of the possibilities."

Admitting it as true that these multiform products are found only in the ovarian dermoid cyst, it is nevertheless true that ovarian cysts are also found which contain only the epithelial products which are found in analogous cysts in other regions, and which are absolutely similar in every respect to the latter. Must a different genesis be assumed for these?

But a fatal defect in the theory is the fact that tumors containing precisely the same rudimentary structures, bone, teeth, etc., have been found in other localities, so widely separated from the ovaries as to preclude the possibility of their originating from a displaced ovum.

I well remember hearing the late Prof. Chas. A. Pope of this city speak with enthusiasm of an admirable lecture by Velpeau upon the subject of tumors, in view of an abnormal tumor of the scrotum which had greatly perplexed his confrères and which by exclusion he pronounced a tumor by inclusion, or, as he dramatically calls it, the patient's brother "the product of conception."

Velpeau made a somewhat sensational report of the case to the Académie de Sciences. He evidently regarded it as a living fetus fixed in the testicle of his patient where it seemed to have been developed and to have lived since his birth. (*Am. Jour Med. Science*, August, 1840, page 440.)

The testicle was not involved. His vivid imagination endowed it with rudimentary eyes, and in the midst of the various elements composing it he found "numerous portions of the skeleton profusely organized."

Still another case (Gordon's) is cited of a dermoid cyst in the mediastinum containing not only hair, but bones and teeth.

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Another theory implying inclusion of a different character is probably the true explanation of these cysts, although it must be said that it is not free from difficulties and is open to serious objections.

It will be remembered that at a very early period of development the blastoderm separates into the three germinal layers, each of which is responsible for the development of certain structures of the body.

From the outer or upper layer, the epiblast, is developed the integument with its appendages, hairs, glands, nails, etc. From this layer, too, is developed the central nervous system.

From the middle, the mesoblast, are developed the bones, muscles, heart, blood-vessels, etc., and the reproductive organs.

From the internal layer, the hypoblast, are developed the epithelial structures.

It is generally conceded that the simple dermoid cysts about the orbit, in the lines of the branchial clefts, and about the lines of union of the germinal layers are simply the result of the inclusion of a portion of the epiblast which, continuing to develop in its imprisoned state, forms a cyst containing integumental products. Why should we hesitate to apply the same explanation to the dermoid cysts of the ovary and elsewhere, which also contain elements from the epiblast but contain, too, those from the mesoblast?

If a portion of the epiblast be mingled by inclusion with the mesoblast it seems to me to require no great stretch of the imagination to conceive it possible for any or all of the structures of these layers to be reproduced in the growth which results.

Against this theory the most serious objection is the fact that an immense proportion of these cysts are found in the ovary (129 out of 188). A large proportion of the remainder are found in the testicle (or scrotum), the remaining few only being found in various positions about the body. It is difficult, perhaps impossible, to offer any explanation of this fact.

The following cases, met with at intervals of seven years, possess, it is thought, features of sufficient interest to justify reporting them.

CASE I. Barbara B—, aged 37, native of Prussia, menstruated

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first at 16, never any pain at menstrual periods, but they were irregular.

When about 18 years of age menstruation stopped for twelve months and again in her twentieth year for three or four months. When 21 years of age, she was delivered at full term of a healthy child. Never pregnant but once.

In April, 1876, she had an attack of vomiting and pain in the bowels, but no marked symptoms of obstruction. Bowels responded promptly to purgatives. Had been constipated generally, but bowels readily moved by purgatives.

She entered Convent of the Good Shepherd June, 1876. For first week after admission bowels were constipated, but were relieved by medicines administered by the sisters.

On Friday, September 22, 1876, did not feel well, and on Sunday following was taken sick while in the chapel, and was excused. She suffered with nausea, rushing of blood to the head and trembling. Later in the day she had pain in the left side in the region of the false ribs. A dose of oil administered next day was followed by vomiting, but the bowels moved two or three times, seemingly from action of the oil. That afternoon, Monday, September 25, pain commenced in the left iliac and femoral region and increased in severity until Wednesday afternoon, when they became so severe as to cause her to scream out and turn pale. The pains were paroxysmal and had become more central. Mustard and hot fomentations gave some relief. After this pain shifted more to right iliac region. Vomiting occurred at intervals, and there was nausea when nothing had been taken to excite it. A dose of oil administered Wednesday afternoon was rejected. Pain continued all day Thursday, and Dr. C. E. Briggs saw her on Friday, September 29. Bowels had not been moved since Monday and there was still a good deal of disturbance, pain and vomiting with some tympanites though not marked. Tongue coated and breath fetid.

On Saturday (30) I saw her with Dr. Briggs.

Percussion and palpation over the abdomen revealed great tenderness and dullness in right iliac region, with fluctuation over a part of the swelling.

Dr. B. suggested fluid accumulation above the point of ob-

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struction. On examination per vaginam and rectum could detect fullness in the right pelvic region and a hard, resisting band or mass extending across the upper and back part of pelvis, irregular and lobulated, too high to determine its character, but reaching across to left side of pelvis in region of sigmoid flexure. Patient still vomiting greenish bile.

We were in great doubt as to the cause of the symptoms of obstruction. Was it a tumor pressing upon the bowel, or was it an abscess? There was no history of tumor, and none had ever been suspected. Notes are missing as to the length of time this complete obstruction existed.

About October 15, the tumor was aspirated and a small quantity of thick dirty grey looking fluid was withdrawn which was submitted to examination by a microscopist, who pronounced it old inspissated pus. October 19, the tumor was again aspirated and about four ounces of fatty matter was drawn off. A hair was found in the cannula and at once determined a diagnosis of dermoid cyst of the ovary.

We drew out considerable hair, but as it continued to come, it was feared it would lead to escape of fluid into abdominal cavity. A probe was used to push any hair in the cannula back into the sac, but when the cannula was withdrawn a single hair was found to remain in its track. It was decided to await results.

Nov. 3. Pain in the abdomen with considerable tympanites. Pulse 114, temperature 101.5°.

Nov. 4–5, Condition and temperature and pulse about the same.

Nov. 6 (Monday). No pain since Saturday, 11, Pulse 100 still considerable tympanitis. Tongue clearing at tip, no appetite.

Nov. 11. Had pain yesterday with nausea and vomiting. Pulse 120, temperature 103.5°. Enema brought away very little fecal matter.

Nov. 15. Tumor projects more prominently than at any previous time and is tympanitic at apex, temperature 101.5° Bowels freely moved yesterday and evidently cleared of any fecal accumulation or obstruction.

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Nov. 18, 9 A. M. Temperature 102°. Tumor tympanitic. Decided to operate by incision over point of puncture, from which hair still protruded, and to be guided by conditions found as to further steps. Accordingly at 10 A. M., assisted by Drs. Briggs. Hodgen, Mudd and Gehrung, made an incision over tumor and evacuated a large quantity of fatty and purulent matter, and removed a large ball of reddish hair. The cyst seemed adherent to walls of abdomen. Introduced a tent wet with carbolic acid.

Nov. 19. Patient rested well last night. Pulse 104. Temperature 100.1°.

Nov. 20. Temperature 101.6°. Pulse 112. Dark, bloody discharge from cyst. 6 P. M. Pulse had risen to 118, and temperature 103.2°.

Nov. 22. Pulse 110. Temperature 101.°. Condition good, discharge less, still colored red.

Nov. 30. Pulse has been for some days 96 to 100. Discharge considerable and offensive, appetite fair.

Dec. 8. Pulse 88. Severe pain in abdomen last evening with vomiting; surface cold and clammy. Relieved by hypodermic injection of morphine (¼gr). This morning temperature 98.5°.

Dec. 9, 10 A. M. Temperature 99.5°. Pulse 100; appetite poor, nausea during day yesterday, following use of morphine day before.

Dec. 10. Pulse 95. Bowels not moved for two or three days, although enemata have been used. Ordered dose of oil. After washing out the cyst, pressure over the abdomen forced out quite a quantity of pus; evidently cyst is not completely cleared out by the washing; patient instructed to lie upon her face.

Dec. 14. Pulse 100, temperature 100.5.°

Dec. 15. Pulse 110, temperature 100.2° Nurse stated that she had fever last evening, and her bowels have been running off some this morning.

Dec. 16. Pulse 92, temperature 100.1°. Washed out more than usual quantity of pus this morning with a small bunch of hair.

Dec. 30. Pulse 80. Appetite good, gets up every day for a

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short time. Pus healthier and less odor, bowels regular. During the next two months the case progressed without any marked changes. At one time a large slough was removed that seemed as though it might have formed a considerable part of the lining membrane of the cyst, and a tooth came away with it.

On Wednesday, March 28, the drainage tube came out and the nurse was unable to replace it. In attempting to wash out the sac, great pain was caused the patient, with a feeling as though something had given way; a good deal of bleeding followed.

March. 29. Pain has continued since yesterday; temperature 101.5.

March. 30. Patient still has pain with general tenderness over abdomen and tympanites increased since yesterday. Pulse 108, temperature 101.5° Tongue coated.

℞ Hydrarg chl. mit. - - - - gr. ½
Morph. sulph. - - - - - gr. ⅙

M. S. To be taken every three hours.

March 31. Pulse 116, temperature 101.6°. Still has pain; tympanites something less, but still considerable. No action from bowels.

April 1. Patient much worse. Temperature 101°, pulse 140; small, easily obliterated; face pinched.

April 2. Pulse 140 and weaker, skin clammy, face haggard, no delirium; no vomiting, but tendency to spit up contents of stomach; condition desperate; ordered quinine and morphia to be continued and hot hop fomentations over abdomen. 8 P. M. Pulse 140; possibly a little better tone. Facial expression slightly improved. Has vomited a little; continue quinine and whisky.

April 3. Wonderfully improved; pulse 116 and good volume; skin warm; face better; tympanites rather less; vomited bile during night. Has a desire to go to stool; wants coffee and bread. 6 P. M., pulse 100, temperature 101.1°; several free passages from bowels; tympanites greatly diminished.

April 4. Pulse 100, temperature 100.6°. Some hardness can be detected in abdomen ranging from an inch to right of me-

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dian line to left iliac region and extending to near umbilicus. Percussion over it elicits deep resonance. Menstrual flow has returned.

April 5. Pulse 100, temperature 100.4°; bowels running off since yesterday, accompanied by a good deal of pain; passages thin, dark and offensive, a good deal of gas escaping with them. Had a good deal of sick stomach and vomited once this morning. Cheeks flushed; hypodermic injections of morphine. 6 P. M., temperature 102°. Decided fluctuation in left iliac region over swelling; diarrhea checked; no vomiting since morning.

April 9. Marked fluctuation above Poupart's ligament on left side. Great tenderness in Douglas's *cul de sac* but no fluctuation about roof of vagina. Pulse 100, temperature 100°. Decided to make exploratory incision over seat of fluctuation; accordingly, assisted by Dr. Banduy, I put her under the influence of ether and made an incision, commencing an inch below and an inch and a half to the inner side of the anterior superior spinous process of left side, extending downwards and onwards to within two inches of linea alba. Reaching combined tendon of oblique muscles, a small opening was made, exposing peritoneum. This could be seen looking healthy, but no indication of pus beneath. The peritoneum was cautiously detached downwards in the hope of reaching the pus, but it failed. Fluctuation could still be distinguished, and on pressure a yellowish fluid welled up under the portion of peritoneum which was exposed. A little of this was withdrawn with a hypodermic syringe, and found to be serum or sero-purulent.

Decided to close up wound and await results. Is it serum enclosed in a sac of plastic lymph, or is there still pus near? The tendency to hectic fever, the pain and circumscribed fluctuation would indicate pus somewhere. 5 P. M., temperature 102°. Has had a good deal of pain coming on in paroxysms; quite severe at times causing her to scream out; some nausea but no vomiting. Gave hypodermic injection morphine, one-half grain.

April 10. 10 A. M., pulse 104, temperature 101.5°; slept well; looks better; old openings discharging healthy pus quite freely.

April 11. Pulse 88, temperature 99°; rested well; bowels

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moved three times spontaneously; tongue clearing; exploratory incision healing by first intention; pulse and temperature and general condition continued much the same for some days.

April 21. Discharge from original opening still profuse; outline of swelling can be felt, one and a half to two inches below umbilicus, extending across to near left ilium. Fluctuation still detected in left iliac region under the site of exploratory incision made April 9; pulse 108, temperature 101° F.

April 23. Pulse 100, temperature 100.2°; had some pain and vomiting yesterday, relieved by morphine; has vaginal bloody discharge, again much too soon for menstrual period. Directed nurse to examine for pus in vaginal and rectal discharges.

Tumor seemingly rises higher in abdomen, reaching nearly to umbilicus, but the increase seems gaseous. It is rounded, elastic, tympanitic; original opening discharging freely.

April 24. Pulse 90, temperature 99°; swelling in lower left side of abdomen less; the tympanitic swelling over tumor disappeared. Some bloody, purulent discharges yesterday from vagina; nausea and vomiting again yesterday.

May 17. Patient is up and about, very slight discharge from original opening; is getting fat; no albumen in urine. Patient continued to improve, and is now, January, 1885, still living and in good health.

CASE II.—Mrs. W. C. T., aged 33, had an attack of uterine colic from use of douche in March, 1883. On examining over abdomen afterwards to ascertain if any tenderness existed, I discovered what I supposed to be a cyst of the left ovary, to which I called her attention and proposed at a future time to investigate more thoroughly. This was not done, however. On Tuesday, November 13, I was called to see her and found her suffering with excessive nausea and vomiting, and learned that she was pregnant two months, and that she had been suffering greatly for a month with sick stomach. She was in bed and unable to raise her head off the pillow. The vomiting had been very severe, and retching and straining so great that she said it seemed that everything would be forced out of her. I prescribed cerium oxalate in gr. viii doses, which seemed to control the vomiting very much, although she continued to have at times retching spells.

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On Friday, November 16, I was called and found there had been some flooding with pain. I gave a hypodermic injection of morphine which seemed to check the threatened miscarriage and relieved the vomiting.

On Saturday she was more comfortable, but I had her use laudanum enemata occasionally. On Sunday, 18, there was again some flow of blood and some pain relieved by anodynes. Monday and Tuesday she was quite comfortable. On Wednesday 21, I was hastily summoned and found her suffering violent pain in pelvic region, which had come on suddenly. It was clearly not the pain of a threatened miscarriage; and I felt confident that something had occurred in the nature of an extravasation; at least some accident within the abdominal cavity that had given rise to the severe symptoms. Hypodermic injections controlled the suffering, but only while under the influence.

Within two or three days, sharp, regularly recurring pains set in and a miscarriage took place, of a fetus of about two months, without seeming in any way to influence the situation otherwise.

Pain continued accompanied by vomiting and tendency to tympanites. On the right side in about the position of the *caput coli* and ascending colon a tumor could be felt that was evidently not inflammatory, nor was it an impacted colon. I then recalled the existence of a tumor in the preceding March. But that was in the left iliac region; this was in the right.

Dr. Maughs saw the case with me and agreed with me that something had happened in connection with the tumor, but we could not say what. The symptoms steadily progressed for the worse; vomiting became more persistent; tympanites more marked, and she sank and died on the evening of November 27. Dr. Brokaw, who also saw the case the last two or three days of her life, concurred in the view that some accident had occurred in connection with the tumor. We discussed the propriety of abdominal section, but the uncertainty and obscurity connected with it deterred us from this course.

At the autopsy, thirty-six hours after death, at which Dr. G. M. B. Maughs and Dr. F. V. L. Brokaw and Mr. V. L. Brokaw, assisted, we found a dermoid cyst as large

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as a small cocoanut lying in right iliac region springing from the right ovary. The pedicle was twisted upon itself nearly twice around—the twist occurring from left to right forwards. A portion of the ileum was carried around with it and was partially strangulated, though not acutely. The Fallopian tube was involved in the twist, and its fimbriated extremity was deeply congested and a slight amount of blood and mucus seemed to have exuded from it. The tumor itself was dark and deeply congested. There was some peritoneal inflammation, but it was not extensive.

Rotation of ovarian tumors upon these pedicles, as occurred in my second case, is not a very rare occurrence. Rokitansky, according to Spencer Wells, was the first to call attention to the accident in a paper published in 1865, on "The Strangulation of Ovarian Tumors by Rotation." But cases had been reported by several physicians before that time, especially Klob, Van Buren (1850) and Crane (1861). (Peaslee, Ovarian Tumors, p. 80.)

This accident is by no means peculiar to dermoid cysts, but it would seem quite as frequent in this class of tumors as in others, if not more so in proportion to their frequency.

Mr. J. Knowsley Thornton in the *Obstetrical Journal* for February 1878 reports two cases of rotation of ovarian tumors and discusses the difficulties in diagnosis which such a complication presented. In neither of the cases reported was a definite diagnosis made until an explorative incision had been made, and the true character of the tumor revealed. In both cases he had the benefit of the experience of that veteran and pioneer in ovariotomy, Sir Spencer Wells, who, like himself, regarded the diagnosis as doubtful.

The pain at the period of menstruation, due to the partial strangulation and congestion of the tumor, the shortening of the pedicle from the twist, and the consequent bringing of the tumor in closer proximity to the uterus, rendered a diagnosis very difficult. The doubt would apply both as to the character of the tumor and the occurrence of the accident. The difficulties in the way of accurate diagnosis would be all the greater when the tumor is a dermoid cyst. The great solidity

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of the tumor would tend to mislead the surgeon when he found the tumor, from the shortness of the pedicle, lying in close proximity to the uterus. It might be an exception to this when the irregularities of pieces of bone might suggest the character of the tumor.

It can be readily understood how difficult, if not impossible, would be the diagnosis of such an accident where the previous existence of a tumor was unknown, and the case was complicated with pregnancy and impending abortion.

THE DANGERS OF BICYCLE RIDING.—When the bicycle was first introduced, some feared its use might produce bad effects, such as diseases of the prostate gland. Since that time cycling has become very common, but comparatively little attention has been paid to it in a professional way during recent years.

Dr. Strahan, of Northampton, England, in an article which appeared in the *Lancet*, Sept. 20th, refers to some grave dangers connected with its immoderate use Obscure nervous complaints are, he thinks, sometimes produced by the continuous jarring—the succession of shocks conveyed to the spinal column in bicycle riding.

A more serious source of danger, however, arises from the amount of pressure brought to bear on the perineum of growing boys, affecting directly the prostate, the muscles of the bulb, etc., and indirectly the whole generative system. In ordinary easy riding the weight of the body comes principally on the tuberosities of the ischium, but on making great exertions in fast travelling or hill-climbing the weight comes chiefly on the perineum. Dr. Strahan thinks this must cause irritation and congestion of the prostate and ultimately early impotence.—*Canadian Practitioner.*

FOR SPRAINS, Professor Brinton teaches that the limb is to be put into a vessel of very hot water immediately, boiling water being added as it can be borne, and kept immersed for twenty minutes or until the pain ceases. Then put on a pretty tight bandage and order rest. Sometimes the joint can be used in twelve hours If the trouble is more chronic, apply a silicate of sodium dressing, and let the patient walk with a cane, if the ankle be the joint affected. —*College and Clinical Record.*

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CASES FROM PRACTICE.

ST. LOUIS MULLANPHY HOSPITAL.—DEPARTMENT OF CHEST AND THROAT.

Service of WM. C. GLASGOW, M. D.

VALVULAR DISEASE OF HEART—RUPTURE OF LUNG FROM EMBOLIC SOFTENING.

P. J., aged 40 years, was admitted into the hospital January 14. He had been feeling badly for about two years; the latter months he was unable to work, complaining greatly of dyspnea, cough and general weakness. There was general dropsy. His face was swollen and cyanotic. He suffered great dyspnea on making the slightest exertion. His pulse was very rapid, feeble and irregular. He had a troublesome cough and expectorated freely a muco-purulent secretion. Bronchial râles were heard generally over the lungs. On examining the heart it was found generally enlarged, the apex pulsating beyond and below the nipple line; the impulse was feeble with an undulating pulsation appreciable from the sternum to the apex; it was greatly increased in breadth. Above the apex a weak presystolic murmur could be heard a diastolic murmur was heard over the aortic valves, and a systolic murmur over the tricuspids. Soon after entering the hospital, he was given a dose of purgative medicine, from the effect of which he was depressed and the dyspnea was greatly increased. Under the use of digitalis and chloric ether with stimulants he improved steadily.

January 20 he began spitting freely dark blood; this ceased after having expectorated about a pint. Three days later he complained of an excruciating pain over the lower portion of the right lung, which yielded to cupping and poultices. On the morning of the 24th he died suddenly in what the attendant called a faint.

The post-mortem showed the right pleural cavity filled with blood, the lungs intensely congested, and in the lower portion of

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the right lung a hemorrhagic infarction the size of a small orange was found with an irregular rupture of the lung and pleural surface. The heart was enormously enlarged, and filled with blood, weighing twenty-four ounces after the blood had been removed. The left ventricle was hypertrophied and dilated, the left auricle was greatly dilated; the right ventricle was enormously dilated, the cavity being three times the usual size.

The aortic valves were thickened and united by inflammatory adhesions, rendering the valves incompetent; at the base of the valves were several inflammatory nodules; the mitral valve was rendered incompetent by a shortening of the chordæ tendinæ from inflammatory thickening, and an enlargement of the orifice through dilatation of the ventricle. On the auricular surface at the base of the valve a row of rounded nodules projected into the orifice; the valve was large enough to admit the hand. The tricuspid valve was normal but incompetent from distention of the ventricle. The liver and kidneys were engorged with blood.

The interesting features in this case are the embolic softening and rupture of the lung with hemorrhage into the pleural cavity. We note also the pathological changes producing a free mitral regurgitation without any evidence being given by physical signs; we also note the absence of a systolic murmur over the aorta, which should have been expected from the existing lesion. I believe that the large size of the mitral orifice prevented the formation ef a regurgitant murmur, whilst the absence of an obstructive murmur at the aortic orifice may have been due to a feebleness with a diminished supply of blood in the contracting ventricle. The large size of the heart is also unusual.

ST. LOUIS HOSPITAL—SURGICAL DEPARTMENT.

Service of DR. N. B. CARSON. Reported by DR. PAUL Y. TUPPER.

INTESTINAL OBSTRUCTIONS.

Robert Q., aged 23, Englishman, carpenter, of good physique, was admitted to the Hospital September, 14, 1884, with the following history.

Excepting a feeling of malaise recurring at irregular intervals, during the last few months, his health has been good. About two years ago while travelling in Africa, he suffered a slight attack of intestinal obstruction, which caused some anxiety and pain, but

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was relieved by simple measures. Five days before entering hospital, feeling the need of a purgative, he took four compound cathartic pills. His bowels not responding, he was advised to take other purgatives, which he did. Among these were jalap, calomel, and citrate of magnesia. An injection per rectum of a quart of water was also administered. This brought away only a few small fecal masses from the lower bowel. During the exhibition of these heroic measures to produce purgation, the patient suffered considerable pain, his abdomen began to enlarge and vomiting set in.

In this condition he was seen by Dr. Carson. Opiates and warm applications to the abdomen were ordered, and he was removed to the hospital. Temperature 102.2° F. Pulse 140 and feeble. Skin cool and moist. Vomited matter distinctly stercoraceous. Depression marked.

Obstruction in the small intestine was diagnosed, and the patient and his friends informed of the nature of the case, its prognosis, etc. An operation was requested by them and immediately proceeded with.

Under ether, the median abdominal incision was made, extending from the umbilicus nearly to the pubis. Upper portion of small intestine was found to be much injected and distended with gas and fluid feces. Following the intestine downward, the obstruction was reached at a point corresponding to about the middle of the ileum. The nature of the obstruction was peculiar. A firm, fibrous band, about an inch and a quarter in length, extending from the intestine to the abdominal wall, had evidently formed during some former inflammatory attack, or was possibly congenital. This band was not connected directly with the normal intestine, but to a blind diverticulum or pouch-like process opening into the intestinal lumen. This diverticulum was about an inch in length and sufficiently large to admit the index finger. The band was attached to the abdominal parietes at a point two inches below and to the right of the umbilicus. In the violent movements of the intestines, a loop had fallen beneath the band connecting this pouch with the abdominal wall and become incarcerated. Below the site of obstruction, the intestine was empty.

Two ligatures were cast around the band and it was divided between them. This relieved the obstruction completely allowing the gas and fluids to disseminate freely through the lower bowel, some flatus escaping at the anus. This incarceration of the loop

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of intestine was evidently of long standing, as the line of pressure of the constricting band was marked by a permanent narrowing of the intestinal calibre. There was no effusion into the abdominal cavity.

The wound was closed with interrupted silk sutures and dressed with iodoform, borated cotton and the binder. During the operation, the patient's condition was critical, requiring the subcutaneous injections of ether and brandy. In bed, hot bottles were applied, and every effort made to sustain the flagging powers, but to no purpose, the patient dying from exhaustion within twelve hours after the operation.

Post-mortem six hours after death. Intestines somewhat injected and containing large quantities of fluid feces. Obstruction entirely relieved. Some discoloration of intestine and permanent narrowing of the calibre at site of pressure of band.

ACUTE GLAUCOMA, COMPLICATED WITH MELANO-SARCOMA.

BY GEO. W. SMITH, M. D., FORT SMITH, ARK.

In this age of Post Graduate Schools, where personal instruction can be obtained at a nominal cost, it is not pardonable in a physician, especially for recent graduates, to make blunders in diagnosis of many of the dangerous diseases of the eye, as is often done. It is not expected of every physician to be a specialist, but all who assume the grave responsibilities of the practice of medicine and surgery should possess a sufficient knowledge of the diseases of the eye to recognize their importance and refer them to physicians who are competent to take care of them. Some physicians fear, if they refer cases coming under their observation to the oculist or gynecologist, that it will be considered an acknowledgment that they are incompetent, and patients whom they have served for years will seek advice elsewhere. All physicians should be able to diagnose a case of acute inflammatory glaucoma.

CASE I.—Mr. M. McE., æt. 57, cotton buyer. Stated in giving a history of his case, that ten years ago, while dressing a mill-rock, a piece of steel struck his right eye in the sclerotic upper and inner quadrant and his "sight went out gradually." At the time of my first visit, he was being cared for by an eclectic physician. He stated that ten days prior to calling in a physician; he had some pain in his right eye and also in right side of his head, which he

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thought was neuralgia brought about by exposure, and would take morphia for relief; the pain was much worse at night. Dr. S. confirmed the patient's diagnosis of neuralgia, and gave quinine, opium, veratrum, gelseminum, aconite, chloral and bromide of potassium and blistered right moiety of his head. This treatment was persevered in for eight days. Pain in the head was constant, loss of sleep was telling on his general health; he suggested to his physician that there was something about his eye that might cause this trouble, and at his suggestion on November 27, 1884, I was called and found the following conditions: Intense pain in his right eye and right side of his head, hardness of the globe (T+3), obliteration of the anterior chamber, the iris and lens occupying closely the concavity of the cornea. Anesthesia of the cornea, opacities of the cornea, with the appearance of having been steamed, dilatation and immobility of the pupil. No view of the fundus could be had on account of the cataractous lens, the conjunctiva chemotic. I advised a calomel purge, and eserine locally every hour, my object being to reduce the tension so as to facilitate the performance of an iridectomy, and to avoid hemorrhage from the choroid by the too rapid reduction of the tension, that an immediate iridectomy might bring about. On the 28th I found pain relieved and tension notably reduced, and advised iridectomy. He declined surgical interference, as he stated he was "feeling very well." On the 29th pain returned, and on the 30th, I performed the iridectomy (the operation under the circumstances, the most difficult to perform). Pain and tension were relieved and continued so (excepting a few hours at night some pain, but not near so much as formerly), until December 6. The pain returned, but no increase of tension; I could not account for this phenomenon, and advised immediate enucleation, which was done under chloroform administered by Dr. E. R. Duval of this city, and was followed by relief of pain. On examining the globe for the piece of metal and failing to find it my attention was drawn to a black mass in the fundus the size of a filbert. I suspected sarcoma, and through the kindness of my friend Dr. E. R. Duval, a microscopic examination was made. His examination is herewith appended:

FT. SMITH, ARK., Jan. 16, 1885.

DR. GEO. SMITH—My Dear Doctor:

The section of tumor given me for microscopic examination belonged to the connective tissue type of the variety known as "Melanotic Sarcomata." This group embraces the mixed, round and spindle celled variety and usually shows a high degree of malignancy. Very truly yours, E. R. DUVAL.

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EDITORIAL.

SOME CONSIDERATIONS CONCERNING PUERPERAL INFECTION.

Joachim Bondesen examined carefully all the cases of puerperal infection observed at the Maternity Hospital of Copenhagen during 1882-83 and is convinced of the necessity of distinguishing between different categories of this infection. Of five hundred and ninety-one women confined during that time, forty-three were attacked with a decided puerperal fever. In twenty-one of these cases the appearance of these symptoms took place so soon after the confinement (between two and five days) that there was no reason to doubt that the infection from which they resulted took place during the confinement itself. Most of these cases occurred in a short period, and this little epidemic had for its evident origin a patient transferred, in the first stages of labor, from the communal hospital to which she had been admitted for a diffuse phlegmon of the forearm and a universal septicemia.

In the other twenty-two cases, on the contrary, the first symptoms of the disease presented so late (from six to ten days after parturition) that it was necessary to reject as unlikely the occurrence of the infection during confinement, no known infection remaining so long latent. The explanation of these cases will be soon found by reference to a secondary infection produced in the puerperal state by the wounds of different sorts, with or without mortification of the tissues of the lower part of the genital canal. This opinion is equally supported by the fact that most of the patients

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in question presented considerable ruptures of the perineum and vagina, and that the disease presented most frequently under the form of parametritis. Similar observations upon late puerperal fever have been made during these late years by MM. Müller, Küstner and Veit, whose interpretation differs however in some points. But in admitting as well established the above given explanation of the origin of late puerperal fever, we are forced to avow that we are not authorized to conclude from the enumeration of all the cases of puerperal disease in what degree the treatment given may be capable of preventing the infection. The elucidation of this question demands a distinction of the different cases: it is necessary to consider on the one hand the cases in which the morbid cause should be referred to the insufficiency of the antiseptic measures taken during confinement, and on the other hand the cases in which the antiseptic method has been insufficiently applied during the puerperium.

EFFECT OF COWS' FOOD UPON THE MILK.

At the meeting of the American Society of Public Analysts held in Brooklyn, Dec. 4, 1884, there was an interesting and animated discussion concerning the effect upon milk of different foods. A report was made of some interesting experiments recently made at the New York Agricultural Experiment Station at Geneva, N. Y., from which it would appear that cows there fed upon *fresh* brewers' grains have given as high as 21.43 per cent. of solids and 12.53 per cent. of fat, while 2.97 per cent. of fat was the lowest. Upon different feeds the cows averaged over 15 per cent. of milk solids. In the opinion of the director there, the *fresh* brewers' grains have no injurious effect upon the milk. Massachusetts' experience seems to confirm this opinion, but a number of the other analysts disagreed with it.

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It would be worth while in this connection to ascertain the experience of manufacturers of condensed milk in preserving milk from cows fed on brewery grains.

Another question discussed was whether food containing an organic acid, as acetic, produces an acid condition of the milk.

MURIATE OF COCAINE.

Not all the effects of cocaine have been successful or pleasant. Dr. E. S. Peck noted (*N. Y. Med. Record*, Jan. 17) in the case of a young boy on whom he operated for strabismus without pain after four instillations of two per cent. solution of Merck's cocaine, an increasing pallor of the face with a profuse beady perspiration, which was attributed at the time to nervous apprehension, but which he now believes to have been due to the cocaine.

Dr. Geo. T. Stevens operated successfully upon a strong but nervous man in the prime of life. About ten minutes after the operation violent convulsions with extreme dyspnea set in. The patient became livid, unconscious, uncontrollable. It was some minutes before it was possible to administer stimulants. It was half an hour before the patient could be considered out of danger. The pulse seemed small, soft and regular, and beat about eighty a minute. The paroxysms of dyspnea resemble rather laryngeal obstruction, but there was at the close of the paroxysms an extreme pain in the left arm, such as often occurs in angina pectoris.

Dr. E. C. River, of Denver, instilled twelve drops of a four per cent. solution into the two eyes of a patient preparatory to operating for strabismus. After the operation the patient complained of nausea and faintness. His face grew very pale, his hands were cold and there was a profuse perspiration with a

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pulse of 48 to the minute. The patient himself attributed these symptoms to his own knowledge that he "was being cut." The same quantity of the solution of cocaine was applied in the same way on the following day without any unpleasant symptoms.

Dr. R. J. McDonald, of Chelsea, Mass., had an unpleasant experience in using cocaine on his own person. He had long been int he habit of using sulphate of copper crystals for a chronic conjunctivitis. The pain from the application would continue for fifteen to thirty minutes. On trying the cocaine he was free from pain for about fifteen or twenty minutes, but then there was severe smarting and lachrymation and inflammation of the conjunctiva. Instillations of cocaine every twenty minutes relieved the pain temporarily, but aggravated the inflammation. Dr. McDonald thinks there was a chemical reaction between the sulphate of copper and the cocaine. The editor of the Medical Record suggests that the hydrochlorate of cocaine may have been prepared with an excess of hydrochloric acid.

Dr. Jas. A Spalding thinks from his observation that in absolute and painful glaucoma, cocaine may disappoint us as to its local anesthetic effect."

The Berlin. K. Woch. No. 50, gives an interesting synopsis of the results of experimental application of cocaine to the region of the mouth and throat of seven medical men at the clinic of Prof. Jurasz, Heidelberg. The special training of the subjects naturally makes the experiments of special value. The proportions used were aqueous solutions, 10 to 20 per cent. (1). The effect began quickly,one to two minutes after application (with brush) and lasted fifteen to twenty minutes. (2) Subjective symptoms preceded the objective (anesthesia) and followed its disappearance; these were dryness, fulness, benumbing, and unconsciousness of the presence of mucus in attempts at deglutition. (1) After cessation of their subjective symptoms the original condition was re-established. (4) The anesthesia does not need to be complete to insure absence of reflex irritability, i. e., the instrument may still be

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felt. (5) It seems that only the sense of touch in the narrowest sense, is affected, changes of temperature being felt.

One patient who had just eaten, vomited on the attempt at removal of a laryngeal tumor after cocaine: subsequently, treated again when fasting, the anesthesia was perfect and the operation effected.

BOSTON WATER SUPPLY AND CHOLERA.

In a recent number of the COURIER attention was called to the immunity of Rome from cholera while neighboring Italian cities were ravaged, the great purity of its water supply through its famous aqueducts affording the only explanation. The necessity for greater precautions in our great American cities was dwelt upon, Philadelphia and New York, notably, having a very faulty provision for drinking water. In the New York "*Nation*," of January 15, 1885, loud complaints is made over Boston's water. The Cochituate has long been unfavorably criticized, it is now stated that "the sewerage of the town of Natick empties into a pond separated by a *sand bank* from one of the reservoirs that feed the city. In making one of these reservoirs the earth of the field which had been manured and cultivated was not removed and everything that could be dissolved, and the mud itself went into the drinking water." It appears that rather than use this mischievous liquid a great many people buy their drinking water, and in some restaurants advertisement is made to the effect that their water comes from well-known springs in the country.

Not long since it was found that Cambridge with Harvard University was supplied from a pond that received sewage. What a state of things for learned Boston! In this age when superstition no longer rules the minds of nations, the visitation of pestilence works immense good by compelling recognition of hygiene and

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the putting of one's house in order. The scourge acts upon the public mind as the more localized one does upon that of infancy, by stimulating the reasoning powers and persuading to reform.

Millions are squandered annually upon mere private gratification in our large cities, often in wanton extravagance that may fairly excuse the savage rebukes of communism. Horace in one of his most stirring odes, cries out against the assumption of the wealth of the nation to private luxury, and warns that this should be devoted to public works; as though his inspiration foresaw Rome's downfall in the corruption of her citizens. What a monument might not a few of the inordinately rich of New York city raise to their eternal glory, by building in common an aqueduct that should draw a river of pure sparkling water from Lake George to purify the metropolis.

Such use of superfluous wealth would go far to justify our civilization and to tranquillize the impatience of the multitude, while insuring health and civic beauty in the place of death and disease.

INVOLVEMENT OF THE LATERAL SINUS OF THE DURA MATER IN MASTOID DISEASE.

It is well known that suppuration of the mastoid process of the temporal bone may involve the lateral sinuses and also invade the internal jugular vein itself. Prof. Taufal described an extreme case before the Medical Society of Prague (Wien. Med. Woch., No. 49, '84.)

An otitis media suppurativa having extended into the mastoid cells, necessitated trepanation of that region. The patient was a man aged 24 years, who since childhood had suffered at intervals from otorrhea, and now showed symptoms of thrombus of the lateral sinus. At the depth of 1 ctm., Tɐɟɔ nɹɐame upon a mass of pus and cholesteatomous matter, which was washed out. In the

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hinder part of the cavity a membrane was exposed; this was taken for the outer wall of the sigmoid sinus where the lateral sinus grooves the mastoid.

The patient not long after died, when it was found that the internal jugular was completely closed at the jugular foramen with a firm thrombus, and that the supposed external wall was actually the inner wall of the sinus; this of course had been opened. This closure of the vein had prevented the disinfecting injections from entering its cavity.

Taufal had some time prior suggested the propriety in such desperate cases of regularly proceeding to the relief of the diseased sinuses. He had recommended ligation of the jugular vein, opening the mastoid and the thrombosed sinus, which to be was evacuated and disinfected, then the internal jugular itself, if involved, was to be likewise treated.

In the case described these acts were unconsciously fulfilled.

It seems as though modern practice may venture upon the most daring surgical attempts with hope of success in desperate cases; the method of Prof. Taufal is sufficiently daring, yet it is the only one that can give the patient any hope under the conditions detailed. Perhaps, doubt might be raised whether the whole system is not too far infected in such cases for relief.

HUMAN BEINGS WITH TAILS.

The theory that in the course of evolution mankind got rid of tails through the simple process of sitting down on them, seems to find support, so far as the former possession is concerned, in the credible descriptions of tailed human beings; or, at least, if persons having instead of the usual coccyx such a prolongation at that part of the spinal column as may be called a tail. Professor Virchow has considered the subject worthy an especial essay, which he presented to the Berlin Medical Society (*Berlin K. Woch.* No.

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47, 1884). The Greek sculptors, as their extant works testify, put short tails on the statues of the wood gods, satyrs and fauns. The surgeon-general of the Grecian army in his supervision of recruits, had his attention drawn to the numbers of men who exhibited in the coccygisal region either tufts of hair or apparently actual prolongation of the spine with tails. It would seem that the Greeks did not carve altogether from fancy. Some cases of tailed men are related by the older anatomists. Of those later recorded, Virchow considers that the most contain neither bone nor cartilage; he calls them soft tails, as the elders called them pig tails on account of their soft consistency. A specimen dissected by Virchow proved to consist of a central chordal mass inclosed with fibrous tissue and surrounded with fat and integument; it undoubtedly was connected with the spinal column. Such a structure cannot, however, be termed a true tail, since proper, formed vertebral elements were lacking; it might be classified as an imperfect tail, since it contained incomplete spinal elements. Sometimes small projections from the integument at various points are observed that admit of explanation by assuming an adhesive dermatitis in the fetus, causing a union between the skin and fetal envelope, which severing leaves the excrescence. Virchow presented, also, a specimen taken from a woman aged 24 years, which exhibited an abundant local growth of hair over the upper lumbar region. Under this growth there was found a concealed spina bifida, one that had not proceeded to the formation of a sac, but that existed as a fissure between the lateral posterior elements of the vertebræ. Virchow argued that this condition was due to a strong local irritation that had checked the spinal development and at the same time caused an excessive growth of hair. Recklinghausen in Strasburg has reported a similar case. It is of practical interest to examine closely such hairy places and note the condition of the spine.

At a later meeting of the Society Dr. Sonnenburg presented a specimen of a caudal mass taken from a child 2 years old. This

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"tail" consisted of fibrous tissue and sprung from a dermoid cyst attached to the sacrum. Virchow, in speaking of this specimen, described a similar outgrowth from a dermoid cyst taken from a deer.

PROFESSOR VIRCHOW ON DIPHTHERITIC MEMBRANE.

At a recent meeting of the Berlin Medical Society, Prof. Virchow protested against the too general use of the term diphtheritic, making it cover cases of undoubted croup. The Professor stated that formerly he had had much difficulty in effecting a distinction in the minds of the profession between croup and diphtheria, the former term being used rather to the exclusion of the latter in diagnosis; now the reverse is true; we hear much of diphtheritic membrane and but little of the croupous. In diphtheria there can be no exudative membrane in the fauces, a membrane that can be expelled as such giving a mould of the parts. The so-called faucial diphtheritic membrane is no membrane, but a slough. The exuded matter stops the circulation and a slough results.

Virchow declares diphtheria to be a parasitic disease. The microbes that abound in the sloughy surface can be inoculated; from the spot of inoculation alterations of tissue rapidly extend with an abundance of such microbes present. These germs are not found in the membrane of croup. While sometimes it may be difficult to establish a clear differential diagnosis, still an obvious croupous membrane, one distinctly fibrinous should not be termed diphtheritic.

As regards treatment, Virchow thinks that the remedies suggested to digest the diphtheritic slough, and thus get rid of it, pepsin, papyin, etc., would have no effect on the microbes; also, that solvents can prove of little use in the fauces, since fibrinous membranes do not occur there in diphtheria.

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ASSIMILATION OF IRON.

Prof. G. Bunge has published in *Zeitschrift f. Physiologische Chemie* an article upon the subject of the Assimilation of Iron, which has some important practical bearings. Inquiring as to the form in which iron is assimilated he analyzed some two hundred yolks of eggs from which he obtained thirty-four grammes, about one ounce of a natural iron compound which was split out from a more complex proteid compound by a fermentative process. Having first determined that it was neither an albuminate, nor a salt of iron but a very complex compound, he then made a complete analysis finding the composition to be as follows:

$C_{42\cdot11}$, $H_{6\cdot08}$, $N_{14\cdot72}$, $S_{0\cdot55}$, $P_{5\cdot19}$, $Fe_{0\cdot29}$, $O_{31\cdot05}$, containing less C, H, and N, but one-third more O and Fe than hemoglobin, and about seven times as much P.

From a study of the processes Prof. Bunge maintains that inorganic iron salts are never absorbed nor assimilated, and that the only way in which iron is assimilated is as a complex iron compound which is the result of vital processes in plants.

As to the method in which iron salts act to relieve anemia, he says that this is simply by preventing the disintegration and decomposition of the organic iron salts by ferment action in the stomach and bowels. The anemia can be relieved either by preventing the decomposition of the hematoglobin by large doses of iron or hydrochloric acid or by treating and curing the gastric or intestinal disturbance which causes the fermentative process.

REMOVAL OF A BRAIN TUMOR.

For the first time, the results of the study of cerebral localization have been utilized in the removal from the brain of a tumor, thus demonstrating the value of those studies upon the lower animals by

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means of vivisection, against which such violent opposition has been made by a great many in England, and we regret to say of late by a considerable number in our own country.

The patient was under the care of Dr. Hughes Bennett at the Hospital for Epilepsy and Paralysis, at Regent's Park. He was a farmer, aged 25, and had been a healthy man until three years before, when he began to suffer from paroxysmal twitchings of the left side of the face and tongue. Then attacks of general convulsions supervened and these local spasms and epileptic seizures continued for about two and a half years, when they were superseded by spasmodic twitchings of the left arm, and after some months the arm became paretic and the left leg began to twitch. There were violent headaches, attacks of vomiting and double optic neuritis.

Dr. Bennett concluded that there was a tumor in the brain, that this involved the cortical portion; that it was probably of limited size as it had destroyed the centres presiding over the hand and only caused irritation without paralysis of the centres presiding over the leg, face and eyelid which lie around it; and, finally, that it was situated in the neighborhood of the upper third of the fissure of Rolando.

We quote the following from a letter of an F. R. S. to the *London Times*:

"The patient had the position in which he stood fully explained to him. He was told that he labored under a malady which medicines were powerless to touch, and that if left unassisted he must die in a few months at latest, after prolonged sufferings similar to those which had already brought him to the verge of exhaustion, and which could only be partially alleviated by drugs; but that one outlet of escape, narrow and dangerous, but still an outlet, was open to him in an operation of a formidable nature, and never before performed on a human being, under which he might perhaps sink and die, but from which he might perhaps obtain complete relief. The man * * * eagerly chose the operation. On the

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twenty-fifth ultimo, accordingly, Mr. Godlee, surgeon to the University College Hospital, in the midst of an earnest and anxious band of medical men, made an opening in the scalp, skull and brain-membranes of this man at the point where Dr. Hughes Bennett had placed his divining finger."

On trephining and removing a triangular piece of bone over the region corresponding to the part where Dr. Bennett had diagnosticated the presence of the tumor, and then slitting up the dura mater, no tumor was visible. As the ascending convolution, however, was apparently somewhat distended an incision was made into the gray matter of the cerebrum and one-fourth of an inch below the surface a morbid growth was found which proved to be a hard glioma about as large as a walnut. It was readily enucleated from the brain matter,the hemorrhage was arrested by the galvanocautery and the wound was brought together with sutures. For some days following the operation the symptoms were very favorable; the temperature did not rise above 100° F. The lancinating pains, vomiting and convulsions ceased. Everything seemed favorable for twenty days when meningitis set in and the patient speedily succumbed.

ARTIFICIAL SEA AIR.—Many, indeed, are the luxuries that the magician's wand of invention now brings into the midst of our homes. As an instance, to produce a sea atmosphere for the sick room, a foreign contemporary suggests the use of a solution of peroxide of hydrogen (10 volumes strength) containing 1 per cent. of ozonic ether, iodine to saturation, and 2.50 per cent of sea salt. The solution placed in a steam or hand spray diffuser can be distributed in the finest spray in the sick room at the rate of 2 fluid ounces in a quarter of an hour. It communicates a pleasant sea odor, and is probably the best purifier of the air of the sick room ever used. It is a powerful disinfectant, the same author writes, as well as deodorizer, acting briskly on ozonized test solutions and papers. It might be well to test the subject in some ward of one of our hospitals.—*Scientific American.*

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BOOK REVIEWS AND NOTICES.

DISEASES OF THE HEART AND THORACIC AORTA. BY BYRON BRAMWELL, M. D., F. R. C. P., E. *New York: D. Appleton & Co.* 1884. 8vo; pp. 783; cloth. . Louis Stationery and Book Company; J. H. hambers & Co.)

The Edinburg school has produced several excellent works on the heart, this the latest compares favorably with its predecessors. It is a bulky volume of seven hundred and eighty pages containing all the latest researches and knowledge pertaining to this branch of medicine. There are many defects in the book, but its excellencies are such we may well overlook them.

The first chapter is devoted to a review of the anatomy and physiology of the heart, its mechanism and nervous supply system and its connection with the general nervous system. The automatic mechanism of the heart and the connections with the vagus and sympathetic, are very clearly described with diagrammatic representations which greatly aid the student in understanding this most complicated portion of physiology. The author has freely utilized the experiments and observations of Gaskill and other well-known physiologists, and has given us one of the best chapters on the subject to be found in any text-book.

Chapter III is devoted to a general consideration of the symptoms and physical signs of cardiac disease and the great vessels with some excellent hints on case-taking.

Fifty-four pages are devoted to consideration of cardiac murmurs. We know of no book in which this subject has been more clearly treated or which will give better satisfaction to the student. Modern investigation has greatly altered our views of the nature and significance of the functional murmur, and a reversal of old and established ideas is absolutely necessary to a knowledge of modern cardiac pathology.

The chapters on pericarditis and endocarditis are well and clearly written, whilst that on ulcerative endocarditis is one of the best that has been published.

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Myocarditis, or inflammation of the muscular substance of the heart, is discussed in the full light of modern investigations, and due prominence is given to it as a frequent and important agent, producing degenerative and weakening changes in the heart. The occurrence of chronic myocarditis or fibroid degeneration of the heart as one of the results of syphilis and of abuse of alcoholic stimulants will attract attention.

One hundred and forty-four pages are given to the consideration of valvular lesions of the heart. The author shows his class-room training in the systematic and happy manner in which he has treated this subject. It may be thought by some that he has entered too minutely into details; although in some instances his matter is extremely elementary, it is so presented that the student can readily grasp the subject. His points of differential diagnosis and his presentation of the symptoms arising from different lesions cannot fail to make a marked impression on the reader. The earnestness with which he seeks to emphasize the fact that the condition of the muscular substance of the heart and not the special valve lesion is the important point to be considered in all questions of prognosis and treatment, will meet with favor from those having practical experience with cardiac disease.

The chapter on thoracic aneurism is short but contains the essential details of the subject; it could have been amplified with advantage.

An appendix on the cardiograph contains an interesting description of the instrument and its working.

The value of the book has been greatly enhanced by the great number of superb lithographs, and the writer is certainly to be congratulated in the production of the most perfect illustrations to be found in any book on the heart. W. C. G.

A MANUAL OF BANDAGING. Adapted for self-instruction. BY C. HENRI LEONARD, A. M., M. D., etc. With one hundred and thirty-nine engravings. Second edition, revised and enlarged. *Illustrated Medical Journal Co., Detroit, Mich.* 8vo.; pp. 159; cloth, $1.50. (St. Louis: J. H. Chambers & Co.)

The fact that this book has reached a second edition shows that a considerable number of students or practitioners have thought that they needed special instruction on this subject.

It is, of course, only by practice that one can acquire facility and dexterity in applying bandages, and a few minutes practical

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instruction by one who is himself skilful is worth more than any book. Certainly a student who had never seen a bandage properly applied would scarcely learn from Dr. Leonard's description how to properly make a "reverse."

The author occupies too much space with a description of obsolete dressings whose only use is to puzzle students and "pad" the book.

The book is fairly reliable for those who have not a good modern text-book on surgery, in almost any one of which the subject of bandaging has full consideration.

HOLDEN'S ANATOMY. A Manual of Dissection of the Human Body. BY LUTHER HOLDEN, F. R. C. S., etc. Fifth edition, edited by JOHN LANGTON, F. R. C. S., etc. With over two hundred illustrations. *Philadelphia: P. Blakiston, Son & Co.* 1885. 8vo.: pp. 886; cloth $5.00; sheep $6.00.

This new edition of Holden's Anatomy is considerably larger than the preceding one. Many new cuts have been added. Most of these are well executed, but we notice that figure 117 represents the vagina as cylindrical in form, which is evidently erroneous.

Another erroneous statement is that on p. 713, viz., that the ligamentum teres of the hip-joint is "quite tight" when the body is in the erect position.

There is some lack of satisfactory completeness, also in the descriptions of the tongue and pharynx.

Still the volume is a valuable one and new editions will afford opportunity for removing the few unsatisfactory features of this.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY for the year 1884. 8vo.; pp. 630; paper.

We gave soon after the meeting of this society a pretty full account of it. The volume of transactions is well printed and contains in full the papers presented at that meeting, reports of committees, etc. We have given elsewhere selections from some of these papers.

TEXT-BOOK OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. BY JOHN J. REESE, M. D., etc. *Philadelphia: P. Blakiston, Son & Co.* 1884. 12mo.; pp. 606; cloth.

Prof. Reese has here given the essential and leading features of Toxicology and Medical Jurisprudence in a condensed form, but with a style at once interesting and lucid.

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The work is admirably adapted to the wants not only of the student but to those of the practitioner, the coroner, the judge or lawyer who may have occasion to look up some point in the course of investigation of a case. The first thirty-one chapters are devoted to a discussion of modes of investigation where death has occurred from other than from natural causes, such as are the subject of coroners' inquests and judicial investigations. The remaining chapters discuss feigned diseases, pregnancy, abortion, infanticide, legitimacy and inheritance; rape, insanity, malpractice and life insurance.

It is not intended for the specialist but will be most valuable to those already mentioned for whose wants it has been prepared.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Sixteenth Annual Session held at Belton, Tex., April 22–25, 1884. 1884. 8vo.; pp. 246; paper.

The Texas Association is thoroughly alive and the members are interested in its work. The result is that their annual volume of transactions contains a large amount of material, much of it consisting of reports of cases, some of which are of very considerable interest.

It is a very creditable volume.

A HAND-BOOK OF THE DISEASES OF THE EYE AND THEIR TREATMENT. BY HENRY R. SWANZY, A. M., M. B., F. R. C. S. I., etc. With Illustrations. *New York: D. Appleton & Co.* 1884. Small 8vo.; pp. 437; cloth. (St. Louis Stationery and Book Co.; J. H. Chambers & Co.)

The index of this volume is quite extensive and seems to cover the ground of ophthalmology quite perfectly.

In looking through the book we notice that there is no chapter on the anatomy of the eye, leaving the student to obtain his anatomy elsewhere; this we regard as a serious mistake; for, not having his attention particularly attracted to it, the student will think it is a matter of no great importance, and, that he can get along without definite anatomical knowledge, whereas, a correct understanding and accurate diagnosis of diseases of the eye depends as much if not more upon a perfect knowledge of the anatomy of the organ, as a correct understanding and accurate diagnosis of the diseases of any other part of the body depend upon an intimate acquaintance with the anatomy of that part.

In a general way, the book is well enough; but there are some

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curious things in it, as for instance, in the treatment of pterygium he gives ligaturing and excision, and makes no mention of the much more satisfactory operation of transplantation.

In treating of trichiasis and distichiasis he describes an operation which we have not seen elsewhere, and which in view of Snellen's and some others does not commend itself to us. Dianoux's in which the cutaneous portion of the lid margin with the lashes is transplanted to the middle of the lid, and the portion of skin from that location is transferred to the margin of the lid.

We do not agree with him in his preference for the bastard word corneitis in place of the pure Greek keratitis, and he certainly has asserted his independence in the spelling of dacryoadenitis, dacryocystitis, which he gives us as *dacmoadenitis* and *dacmocystitis*, by what rule he changes the upsilon into "u" in one place and into "y" in another in the same word is beyond in our present understanding.

Chapter XIV treats of the "Pupil in Health and Disease," and is of particular interest to the general practitioner as an assistance in diagnosticating diseases other than those of the eye. We notice that he speaks of the dilator pupillæ muscle as if its existence were as well recognized as that of the sphincter pupillæ; the existence of this muscle in man is not usually considered as established beyond a question.

In his preface, the author says, that the book is chiefly written for students and we should judge that from it quite a fair and extensive superficial knowledge of diseases of the eye might be obtained, but we do not think it is the equal of several others which are already in the hands of students; some of which have been noticed in previous issues of the COURIER. M. H. P.

BOOKS AND PAMPHLETS RECEIVED

Modern Medical Therapeutics. By George H. Napheys, A. M., M. D. etc. Edited by Joseph F. Edwards, M. D., and D. G. Brinton, M. D. Eighth Edition, Enlarged and revised. Philadelphia: D. G. Brinton. 8vo.; pp. 629; cloth; $1.00. (St. Louis Stationery & Book Co.)——One Hundred Years of Publishing. 1885. Philadelphia: Lea Brothers & Co. 8vo.; cloth.——A Manual for the Practice of Surgery. By Thomas Bryant, F. R. C. S. With seven hundred and twenty-seven illustrations. Fourth edition, thoroughly revised. Philadelphia: Henry C. Lea's Son & Co. 8vo.; pp. 1039: sheep. (St. Louis Stationery & Book Co.)——Princi-

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ples and Practice of Gynecology. By Thomas Addis Emmet, M. D., LL. D. Third edition, thoroughly revised. With one hundred and fifty illustrations. 1884. Philadelphia. Henry C. Lea's Son & Co. 8vo; pp. 876; sheep. (St. Louis Stationery & Book Co.)——Ophthalmic Science and Practice. By Henry E. Jules, F. R. C. S. With one hundred and twenty-five illustrations. 1884. Philadelphia. Henry C. Lea's Son & Co. 8vo; pp. 467; sheep. (St. Louis Stationery & Book Co.)——Insanity and Allied Neuroses. By George H. Savage, M. D., M. R. C. P. With nineteen illustrations. 1884. Philadelphia: Henry C. Lea's Son & Co. 16mo; pp. 544; cloth. (St. Louis Stationery & Book Co; Jas. H. Chambers & Co.)——Consumption; Its Nature, Causes, Prevention and Cure. By J. M. W. Kitchen, M. D. 1885. New York: G. P. Putnam's Sons. 8vo; pp. 223; cloth. (St. Louis Stationery & Book Co.)——Intestinal Obstruction. By Frederick Treves, F. R. C. S. With sixty illustrations. 1884. Philadelphia: Henry C. Lea's Son & Co. 16mo.; pp. 515; cloth; (St. Louis Stationery and Book Co.)——Elements of Surgical Diagnosis. By A. Pearce Gould. 1884. Philadelphia: Henry C. Lea's Son & Co. 16mo.; pp. 584; cloth. (St. Louis Stationery & Book Co.)——Organic Materia Medica. By John M. Maisch, Phar. D. Second Edition. With two hundred and forty-two illustrations. 1885. Philadelphia: Lea Brothers & Co. 8vo.; pp. 511; cloth. (St. Louis Stationery & Book Co.) ——Elements of Practical Medicine. By Alfred H. Carter, Lond. Third edition. 1885. New York: D. Appleton & Co. 8vo.; pp. 447; cloth. (St. Louis Stationery & Book Co.)——Sixth Annual Report of the State Board of Health of Illinois. 1884. Springfield, Ill: H. W. Rokker, State Printer and Binder. 8vo.; pp. 324; cloth.——The Physician's Daily Pocket Record. By S. W. Butler, M. D. Edited by D. G. Brinton, M. D., Philadelphia.——The Social History of the Eighth International Medical Congress. By D. Bryson Delavan, M. D.——Sixth Annual Report of the State Board of Health of Illinois. 8vo.; pp. 309; cloth.——Proceedings of the St. Louis Medical Society of Missouri for 1884. (Reprint from the Weekly Medical Review.)——Treatment of the Insane. By Orpheus Everts. M. D.——Eleventh Annual Report of the Superintendent of the Cincinnati Sanitarium. For year ending Nov. 30, 1884.——Extensive Burns Involving the Cavity of the Knee-Joint. By W. H. Daly, M. D. Read before the Brit. Med. Assoc'n.——Address in Medicine. By W. H. Daly, M. D. Read at annual meeting of Pennsylvania State Medical Society.——Cerebral Localization in Relation to Insanity, with cases. By J. M. Carnochan, M. D. (Reprint from Medico-Legal Journal). New York: J. H. Vail & Co. 1884. Large, 8vo., pp. 48. cloth.——The Hygiene of the Nervous System and Mind. By C. H. Hughes, M. D., St. Louis. (Reprint from the Alienist and Neurologist).——Transactions of the American Dermatological Association, Eighth Annual Meeting, August, 1884.——A System of Medicine by American Authors. Edited by Wm. Pepper, M. D., LL. D., etc. assisted by Louis Starr, M. D. Vol. I. Etiology and General Diseases. Philadelphia: Lea Brothers & Co. 8vo.; pp. 1094; cloth and sheep. St. Louis: E. Holdoway & Co., Gen. Agts.

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REPORTS ON PROGRESS

OBSTETRICS AND GYNECOLOGY.

Puerperal Eclampsia.—JAS. F. SULLIVAN suggests the following mode of treatment of puerperal eclampsia as having given very satisfactory results in the course of an extensive obstetrical practice.

He relieves the bowels by free injections and the administration of two or three drops of croton oil on the tongue.

If one or several convulsions have already occurred he injects hypodermically twenty drops of fluid extract of veratrum viride and a half grain of morphia.

Free bleeding from both arms he regards as a most important measure when the pulse is full and tense.

When these measures have been adopted the next convulsion is generally delayed much longer than before and is less severe. If the pulse has not yielded in force and frequency in the course of ten minutes he injects ten drops more of the veratrum viride and repeats this every fifteen minutes until the pulse does yield. And he states that when that point is gained he has always found that the convulsions have ceased without any ill effects to mother or child.—*N. Y. Med. Jour.*, Nov. 15, '84.

Extra-Uterine Pregnancy of Seven Years' Standing—Escape of the Fetal Skeleton by the Anus.—A woman aged 37, recovered from an attack of peritonitis in the second month of pregnancy. Fourteen days before the normal termination of pregnancy, childbirth pains occurred that ceased suddenly after three days. The fourth day she rose from her bed, there was some milk secretion; otherwise nothing noticeable. Six weeks later menstruation reappeared, which continued regularly; the general health has also been excellent. Suddenly after an interval of seven years, peritonitis again appeared which confined her to bed five weeks; hair

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appeared in the feces. Five months subsequently small fetal bones were passed without any soft parts; these continued to be voided for three months, up to the time the case was reported; also skin and tendons were said to have been discovered. It is remarkable that in all the bones ossification is more advanced than in the fetus at term. In the right abdomen a painless tumor could be felt about the size of a child's head, which gradually decreased in volume.—*Centralblatt f. Chir.*, No. 47, 1884.

MEDICINE AND THERAPEUTICS.

Injection of Finely Powdered Inorganic Material into the Abdominal Cavity of Rabbits does not induce Tuberculosis.—When Koch first announced to the world his discovery of the tubercle bacillus, and gave an account of the experimental evidence which had convinced him of its essential etiological relation to the disease tuberculosis, it was natural that conservative physicians should demand additional evidence and confirmation from other sources before accepting his conclusions, notwithstanding the reputation which he had already established as an expert and conscientious investigator. Hence Dr. George M. Sternberg was led to study the *modus operandi* of the bacillus in producing tuberculosis, and ascertain whether its pathological power resulted from its simply acting as a mechanical irritant or depended upon specific physiological characters peculiar to it. His important investigations were made in the biological laboratory of the Johns Hopkins University. He injected into the peritoneal cavity of a number of rabbits thoroughly sterilized powdered glass and marine blue, taking every precaution to avoid the dangers and possibilities of accidental infection, and the results gave no support whatever to the claim that tuberculosis may be induced by the presence of finely powdered inorganic particles, or to the view that the tubercle bacillus induces tuberculosis by acting simply as a mechanical irritant.—*Am. Jour. of the Med. Sci.*, Jan. '85.

Chloral in Asthma.—DR. RUFUS W. GRISWOLD reports that in a number of cases he has succeeded in affording complete relief to patients suffering from attacks of spasmodic asthma, and repeat-

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edly in virtually curing the disease by the administration of hydrate of chloral in doses of fifteen grains every three or four hours.—*Louisville Med. News*, Jan. 10, '85.

Phenol-Camphor.—DR. THEO. SCHAEFER states that equal parts of crystallized carbolic acid and camphor combined with heat will form a permanent liquid, colorless, having the odor of camphor, with a sweetish camphoric taste, somewhat benumbing the tongue. When ignited it burns with a smoky flame. He has used this substance as a local anesthetic in odontalgia, introducing it on cotton into the hollow of a carious tooth. He has also found it useful as a local anesthetic in cases of ingrowing toe-nails. It can also be used as an antiseptic as a pleasant substitute for carbolic acid, being less irritating, less caustic and having an agreeable odor.—*Boston Med. and Surg. Jour.*, Jan. 8, '85.

SURGERY.

Fracture of the Odontoid Process of the Axis.—A girl aged 11 was very roughly mishandled, being seized by the hair of the head and several times violently driven against a beam. She was able afterwards to go about but complained of headache, and next morning exhibited symptoms pointing to lesion of the cervical vertebræ. She was seen by Dr. Kuester, who reports the case one and a fourth years after the injury was received. The condition then was as follows: Motor paresis of the limbs and tongue, but intact bladder and rectum, sensibility being normal and but little disturbed; very much increased sensitiveness and reflex irritability of the cervical spine; incapacity to fix the head, and abnormal prominence at upper end of cervical spine. By exclusion diagnosis was made of fracture of the odontoid healed by fibrous union only, and myelitis in consequence of the resultant compression. To remedy the latter extension by weights was resorted to. In about seven to eight weeks the patient was able to walk about the room, but with uncertain gait. This improvement continued up to the time of presentation of the case before the surgical congress, five to six months.—*Centralblatt Med. Wiss., No. 51, '85.*

Stricture of the Esophagus.—DR. T. CURTIS SMITH relates the case of a child suffering from stricture of the esophagus caused by swallowing concentrated lye. For two years he was compelled

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to live on fluid diet or very thin semi-fluid food taken in small quantities at a time and very slowly. This continued for two years. As he was an unusual hearty child it was difficult always to prevent his taking some solid food, which after being retained for a short time would be regurgitated. He was tolerably well nourished and at long intervals there would seem to be a time when the child could retain a few mouthfuls of solid food. When about four years old he ate a piece of dried peach. It was not regurgitated. Soon after it became evident that the lumen of the stricture was closed and every mouthful of liquid that was taken was quickly regurgitated. The child suffered greatly from thirst and from pain. The symptoms grew more aggravated until the fifth day, when, apparently, the portion of dried peach which had obstructed the lumen of the stricture softened, disintegrated and passed on through the stricture. Immediately there was a demand for food and drink; and from that time the child has been able to eat all sorts of food like other children. Apparently the piece of dried peach had acted like a tent and expanding by the absorption of moisture had dilated the stricture. —*Med. and Surg. Reporter*, Dec. 6, '84.

Iodine in Treatment of Goitre.—DR. W. G. MCCASKEY reports a case of goitre in a young unmarried woman measuring three and a half inches from side to side and from 1½ to 2½ inches vertically, being larger on the right side. He treated the patient by administering three times daily six drops of Lugol's solution and injecting into the tumor once or twice a week four to six drops of tincture of iodine. About twice a week he passed a current of electricity (twelve cells) through the tumor for twenty or thirty minutes, with the cathode over the tumor. In three months' treatment the tumor was so far reduced that it had wholly disappeared upon the left side, and only a moderate amount of thickening remained upon the right side. The neck was reduced from thirteen and a half to eleven inches in circumference. The patient lost fifteen pounds in weight. When the debility became marked, the Lugol's solution was discontinued for a week. This was done twice during the treatment. Within a month of the discontinuance of the internal treatment the patient had regained her original weight. All the unpleasant symptoms depending upon pressure of the tumor were relieved.—*N. Y. Med. Rec.*, Jan. 10, '85.

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SOCIETY PROCEEDINGS.

OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting—Jan. 25, 1884.

Dr. McPheeters, President, in the chair.

DERMOID CYSTS.

Dr. Prewitt read a paper on Dermoid Cysts of the Ovary.

Dr. Prewitt.—I remember hearing the late Professor Charles A. Pope of this city speak of a case of Velpeau's which had greatly perplexed all who had seen it, concerning which Velpeau had made the somewhat sensational report to the Academy of Sciences that the patient and the tumor were the effects of the same conception. The report of this case will be found in the *American Journal of the Medical Sciences* for 1840, at page 40.

Dr. Gregory.—We have at the St. Louis Medical College a cast of this scrotal tumor together with the testicle of which Velpeau spoke, and which Dr. Pope left to us. It appears that in the case which Dr. Prewitt reports there was hair present, which enabled him to decide as to its character. I see that Dr. Samuel W. Gross in a pamphlet which was sent to me some time ago says that there was a hair sticking out of the cyst that Velpeau diagnosed. I had always supposed that in this dermoid cyst of Velpeau there was no such assistance to diagnosis. Velpeau was undoubtedly a very wonderful man, but I do not see how he could have known as much about dermoid cysts as the profession of this day. He must necessarily have studied the subject under very great difficulties, as its literature was then comparatively sparse; so we must ascribe this diagnosis of Velpeau's to the unusual learning of the man. It is an accepted opinion that Velpeau was probably a man of greater learning than any other which the profession has produced. It appears that Velpeau kept the patient under observation for many months, and every man of reputation who came to his

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clinic was requested to examine it and give his opinion. These opinions were all recorded, and Velpeau, having in the meantime studied them carefully, concluded that the case could not possibly accord with any of them, that it must be something which nobody had guessed, and he then concluded it must be a dermoid cyst. Everybody was looking forward to the time when he would give his opinion, and when he did so, it was to the effect that the tumor was the patient's brother in his testicle. Dissection proved that there was really a skeleton there; there were bones and teeth and a great variety of material that looked very much like what a fetus could be constructed from. This was the story that Dr. Pope used to detail. For a long time after hearing this story I regarded it as the most wonderful diagnosis that had ever been accomplished by any human mind, and now I am satisfied that Velpeau knew more about dermoid cysts than any living man of that time.

Dr. Papin.—I remember hearing Velpeau detail the case in 1848, and a very interesting lecture he made of it. The old gentleman would sometimes show his genius and rise above every one else. He was a very remarkable man although personally unpopular. He was rude to his students and sometimes to his patients, but notwithstanding his origin his genius would soar. In this lecture he was particularly interesting. I suppose he presented it from year to year to his class.

Dr. Boisliniere.—He belonged to that class of men who are great in everything they attempt. He was a brilliant obstetrician; he wrote the best work on midwifery of that time.

Dr. Prewitt.—I do not think it is at all surprising that Velpeau made the diagnosis; it is one of the simplest things in the world. There was a hair sticking out of the cyst. The subject at that time of course was not as well understood as now, and he made a very startling story of it, because he represented that there was a tumor in the scrotum which had been there from birth. It had grown more or less; there was a pretty well defined line between the integument of the tumor and the remaining integument; and the integument of the tumor could be cut into without sensation to the patient and was nevertheless living tissue. It bled just like any other punctured tissue and healed up just like any other. Velpeau, however, regarded this tumor as a distinct individual, simply drawing its sustenance from the patient, and as the product of conception. He supposed it had its own nervous centres,

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apart from those of the patient. He imagined he saw something like a rudimentary heart; he imagined these bones were parts of a skeleton. All this was very largely imaginative, I am sure. I do not think anybody has ever seen anything that at all resembled the outline of a skeleton in these tumors, except bones which have looked a little like jaw bones with teeth in them, and detached bones of different shapes, all of which have been found and I have seen. I had a case at the City Hospital of a large dermoid cyst containing bones, but of no definite shape; they were irregular bones of various shapes. If my imagination had been vivid I might have succeeded in comparing some of them to a vertebra and some flat bone to another part of the skeleton, and so regarded them as portions of a skeleton, but there is no reason to suppose that this is so, because they are irregularly developed upon the wall of the tumor.

Dr. McPheeters.—Is the size of this tumor of the scrotum given?

Dr. Prewitt.—It was not very large.

Dr. Gregory.—I do not wish to say that there would be anything wonderful in diagnosing such a tumor at this day, but it was wonderful in Velpeau's time; there would certainly be no difficulty in diagnosing it now.

Dr. Papin.—The history that Dr. Pope gave of Velpeau's case was that Velpeau stated he saw hair coming out of a fistulous opening, and it was this circumstance that gave him a clew to the diagnosis.

Dr. Prewitt.—Lawson Tait alludes to those cysts which contain some integumentary products, whereas dermoid cysts according to his theory contain multiform products; there is a difference in the genus. If these tumors were due to enucleation of the external embryonal layer, why do they so frequently occur in the ovary? An enormous majority of cases occur in this site, I think 118 out of 128 cases have been situated in the ovary. There must be some reason why the ovaries are so much more frequently affected by these tumors than any other portion of the body. They are also found frequently in the testicles.

Dr. McPheeters.—What proportion of these tumors are found in females?

Dr. Prewitt.—I think there are about three in the female to two in the male; more than that probably.

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Dr. Ford.—There is one consideration which I think it might be well to notice, of an etiological character. It is a very well recognized fact in physiology that there is a fundamental similarity between the processes of reproduction of lost parts and the normal developmental process. In the lower forms of life, and in early fetal life an organ may be reproduced, fingers or toes will be formed anew. The physiological idea seems to be that a certain amount of developmental power belongs to the germ, and if this is not entirely expended in growth a portion of it remains latent, as in the female, and that accounts for her smaller size. The portion of formative force held in reserve by the female is expended in later life by the generative organs, and that leads us to think that there resides in the generative organs both of the male and female a certain remaining formative power, so that it is not very surprising that we should find these erratic productions existing in the ovaries and in the testicle, but especially in the ovaries, where there remains the greatest portion of latent developmental power. This doctrine is well expatiated on by Carpenter. Another very interesting point in the same connection which it is well to notice is that the only instance in the human economy in which we have a continual reproduction of lost parts in their entirety is in the female. As we know this takes place during the functien of menstruation and in the fall of the decidua at childbirth. The utricular glands of the uterus are reproduced after being almost entirely destroyed. We must therefore assume that there is a latent power of reproduction as a cause of the appearance of these dermoid cysts quite independently of any vicious development of the different layers of the germinal membrane.

Dr. Prewitt.—If I understand Dr. Ford's remarks correctly he refers to the position held by some that there is a developmental power in the ovary of the female independent of the stimulus of impregnation. Tait puts forward a similar explanation of these tumors and cites instances in the frog and especially in insects where the offspring inherit the effects of the impregnation of the parent, where eggs are developed without direct impregnation, that is, undergoing partial development without the stimulus of normal impregnation. In fact it would seem to me that it would certainly be the most satisfactory of all explanations that the ovum of the female possesses in itself a formative power, and in exceptional cases may originate these imperfect structures. I think that

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would be the most plausible of all theories, if dermoid cysts were limited to the ovaries, but, as we know, they occur elsewhere.

Dr. Engelmann.—Dr. Ford's theory harmonizes very well with the one at present generally accepted, that is, that these tumors develop from stray cells of the outer and middle layers, and the fact that the development is observed most commonly in connection with the ovary is readily accounted for by that peculiar vitality, the developmental power, the reserve force stored in the reproductive organs to a greater degree in the female, but it is also a fact true in regard to the male organ, formed in the centre of the abdominal cavity, the testicle.

Dr. Ford.—An extraordinary vitality and reproductive power is possessed by the organs of reproduction in both sexes, but especially in the female. With her a large share of germinal force is reserved for the generative functions. To these functions she sacrifices her height, her intelligence, and strength. Much of her primary endowment seems to be reserved in the generative organs; and when these lose their faculties the individual reverts to the male type in many respects as age advances.

COCAINE IN GYNECOLOGICAL PRACTICE.

Dr. Engelmann.—I wish to bring before you a subject which has greatly interested me and which has created considerable excitement of late, that I may obtain the experience of gentlemen here, and this is the use of cocaine in gynecological practice. I am anxious to hear what success the gentlemen have had with the new remedy. I have used the hydrochlorate of cocaine quite freely but within a very short time only, as I did not at first resort to it, presuming that it would act only on very delicate tissues like the conjunctiva, but not upon heavier mucous membranes; but to my great delight I have had the most excellent results from its use. I have found it serviceable in a variety of cases, and I would like to share the experience of those present in order that I may arrive at some conclusion as to how and where it is to be used.

I have found it most valuable and reliable in reducing the sensibility of the parts in order to admit of the use of instruments. I have found it serviceable in reducing the spasmodic contraction in vaginismus and the pain in some forms of dysmenorrhea. I have used it in reducing the pain of coxalgia and the itching in pruritus vulvæ.

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I have had two patients who have been under treatment almost constantly for seventeen and twenty years respectively. These have been sufferers with chronic metritis and endometritis, and sensitiveness of the ovary and rectum; they are patients who have undergone all possible treatments that could be resorted to. I tried the hydrochlorate of cocaine, and will say that it did what nothing else has ever done. One patient has been in the hands of a good many able gentlemen in this city and elsewhere; treated last by Dr. Maughs and Dr. Gehrung, she tells me that they were never able to use the speculum or to make an ordinary application without placing her under the influence of chloroform or morphine. I painted the vulva with a little mop of cotton saturated with perhaps four or five drops of a four per cent. solution, put a little pledget of cotton saturated with the same into the vulva, then pushed it lightly into the vagina, and within two minutes, I presume not more than two minutes later, I was enabled to introduce the speculum without exciting any reflex contraction of any muscles; in fact the patient experienced no discomfort even. I believe that she felt the instrument, but it did not give the slightest annoyance.

Formerly I was obliged to use the speculum with the greatest care, and after each treatment the scene was a most annoying one; she was in a state of hysterical excitement, talking and gesticulating wildly, and if the operation was undertaken in my office she would leave the operating table and sink upon the sofa in a dazed state. Then I was obliged to lead her into another room and let her lie down for several hours. I did not dare or even attempt to enter the uterine cavity at all. I made applications only to vagina and cervix. After applying the cocaine this same patient did not even feel the use of the speculum or the application, and was hardly conscious of its introduction. Previous to that even such a small object as a uterine applicator introduced into the cervical canal caused her to suffer intense pain, and left her in an extremely uncomfortable condition.

Another case was that of a patient who is suffering from dysmenorrhea, who had been suffering intensely for years; all her organs are excessively sensitive, the rectum as well as all the pelvic viscera. She had dysmenorrhea, but was passing very little blood. I used the speculum in the same way without any evidence of pain and cleansed the cervix and cervical canal, then introduced a pled-

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get of cotton soaked with a few drops of a four per cent. solution, and left her perfectly comfortable. The insomnia from which she had been suffering for years remained. This constant sufferer from dysmenorrhea received relief such as she had not known for years. In another patient who is in the same sensitive state, having a subacute or chronic inflammatory condition of all the pelvic viscera, in whose case it was impossible to enter the uterine canal without almost producing convulsions, the intense suffering was greatly relieved by the use of cocaine applied upon a pledget of cotton. I took a very delicate pledget of cotton which I wrapped around the applicator and so introduced it into the uterine canal. This patient had become almost childish and was beginning to lose her mind. She was put in a comfortable condition by the use of the cocaine. The speculum was introduced without the least trouble. Previous to this time, upon removing the speculum she always went into hysterical spasms, but after treatment with cocaine the speculum was used without producing any of these effects. In fact she says that she felt no pain whatever; she did not feel the use of the speculum, and she left the office after the application feeling perfectly comfortable.

Dr. Scott.—How long do the effects last?

Dr. Engelmann.—The direct effects I can not say. I only know as yet that the patient is left comfortable for the time, and the excessive suffering seems permanently lessened.

Dr. McPheeters.—In the case of pruritus vulvæ how did you apply the remedy?

Dr. Engelmann.—In the same way, taking a little pledget of cotton upon the end of the applicator, and saturating it with a four per cent. solution, and then painting the surface with it.

Dr. Boisliniere.—How long does it relieve the unpleasant symptoms?

Dr. Engelmann.—I have only one such case, and it has been three days between the first and second visits, and the pain was relieved during that time. Another case in which I have used the remedy is that of a little girl who has gonorrhea, and you may imagine how intensely sensitive those little parts are. When I came near her she shuddered, and all her muscles contracted. I painted this in the same way, with, I presume, not more than four drops of a four per cent. solution, with a cotton mop and left that in perhaps two minutes, when I was enabled to use the speculum,

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and though she claims that she felt the application, she did not contract a muscle. In a case of intense suffering and excessive hyperesthesia from a lacerated, everted and eroded cervix, a case in which there was backache and hysterical nervous excitement with constant suffering in a lady who is being prepared for an Emmet's operation, I used this remedy with a most happy result. This patient wished to attend a ball, and promised if she were permitted to do so to obey ever after. I painted the lacerated, everted and eroded cervix with a cocaine solution, introduced it into the cervical canal, and supported the uterus with some cotton tampons; from the time she left the table, a few moments after the application, her backache, nervousness and suffering ceased, and she attended the ball with perfect comfort, although she had hardly been able to walk a few squares without suffering previously. She was completely relieved of the other unpleasant sensations of backache, dragging down, and pains passing down the legs. I have used it in the rectum in a case of intense suffering where the patient would creep from the closet back to her bed after each operation on her hands and knees in the most intense agony. I understand she has had fissure of the rectum, although I could not now find such. Very evident is the metritis and endometritis, hyperesthesia and intense suffering from a point in the coccyx. The application of a little pledget of cotton on the applicator soaked in a four per cent. solution was left in the rectum, and entirely relieved the pain. She passed her stools with perfect comfort, and the pain of the coccyx is to a great extent lessened. It is a case upon which operation has been suggested and I had refused at the time, thinking that it might be a reflex pain and not a disease of the bone; now that intense pain which has lasted for a year or two is leaving, lessening at least.

Those are some of the most striking of the cases in which I have used this remedy. Let me add that it has been used to relieve the pain of dysmenorrhea by injection of four drops over the region of the ovary. The physician who reports this claims that it relieved all suffering with exception of the local pain and backache. This very pain was in my case relieved by the application to the cervix which I made; and if the injection of the drug in the region of the ovary will relieve the other pain then we will have a complete remedy for this trouble, as all pain, will be relieved. I am anxiously expecting several such cases on which I

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intend to try the effects of the drug. I have used this remedy in one case of vomiting in pregnancy where all internal remedies had been in vain, but upon making an examination I found that this was quite natural, as an eroded cervix showed cause sufficient. There was a large circular erosion, and after cleansing and drying it thoroughly I applied the cocaine and the vomiting ceased.

Dr. Papin.—I procured five grains of this drug, and the first patient that I used it upon was an Irish girl who came to consult me on account of supposed presence of the root of a tooth left in the gum by a dentist. I attempted to touch it with my finger, but she would not permit me to do so on account of the sensitiveness. I put some of this drug upon cotton and placed it over the part, and in a few minutes afterwards was enabled to explore and remove part of the alveolar process. My second patient was a lady who was delivered nineteen years ago by a midwife, and who has since been suffering from vaginitis with some engorgement of the os. It has been the torture of my life to attend this woman. She would stick to me however and come back every few months, and very faithfully attend my office for awhile; and then become so fearful of pain that she would not return for some time. The last time I saw her I tried the cocaine, and I can testify with Dr. Engelmann that it was a complete success. The patient was very nervous when I began the examination, but I was enabled for the first time in years to probe the womb thoroughly after making an application of cocaine to both vagina and os. My third case was a young woman, extremely feeble and of a nervous temperament, who has born two children. Since the birth of the last child she removed to the State of New York and has had some considerable rectal, vaginal and uterine trouble. She was unwilling to be treated there and thought she would come home to her friends and consult me. Only a few days ago I saw her for the first time, and from the description she gave of her symptoms was satisfied that there was a fissure in ano. She would avoid any evacuation of the bowels for days, and when one did finally occur suffered very great torture. She had lost so much flesh as to have become almost a skeleton. The thought of an examination kept her awake all night. Next morning I applied the cocaine to the rectum, gradually pressed it up with the finger, and found it was less and less sensitive. I then introduced one of my fingers into the rectum. She said "you are going to do something" and jumped sud-

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denly and cried out a little. Finally I introduced two fingers into the rectum. I asked her if it really hurt her and she said "No," but she was afraid I would. The fourth case was one which belongs properly to the province of surgery. It was a case of a carbuncle on the neck, of about the size of a silver dollar, and all the gentlemen will appreciate the fact that these carbuncles are extremely sensitive. I told the patient he must prepare himself to suffer a great deal from the operation, which must be a very painful one. Without saying anything more I moistened a little absorbent cotton in cocaine and placed it upon the carbuncle. I then quickly made a crucial incision, cutting very deeply through the whole inflamed surface. I asked the patient if it did not hurt him, and he said, "If you call that hurting, I do not think it is anything in comparison to what I have already suffered." Such has been my experience.

Dr. Gregory.—Is there any objection to introducing the remedy into the womb?

Dr. Engelmann.—None at all.

Dr. Boisliniere.—Was not the relief experienced in these cases due to the fact that the cotton was left inside the canal?

Dr. Engelmann.—I did not pass it up as far as the internal os.

Dr. Ford.—Did not the pledget of cotton obstruct the canal in some way during menstruation, or was it expelled?

Dr. Engelmann.—I think it was expelled. I have also used the remedy in a case of eczema with excellent results.

Dr. Ford.—I have recently read a paper by Squibb in which he states there is hardly any probability of this drug becoming much cheaper than it is at present, at least soon. The quantity that is obtainable from the leaves is exceedingly minute, and the leaves must be selected with very great care and be quite fresh.

Dr. Boisliniere.—How long does it relieve the pain of eczema?

Dr. Engelmann—It has been relieved in the case in which I used it for at least two days, it may last longer.

Dr. Prewitt.—How much can we inject under the skin?

Dr. Engelmann.—From two to four minims of a four per cent. solution has been injected.

Dr. Prewitt.—I injected more than that in a case of neuralgia without any effect at all. It was the case of a man who had a neuralgia of the inferior dental nerve, in which Dr. Hodgen had

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drilled the jaw bone three times, I think. He came to me and I resected the nerve above the point where it entered the inferior dental canal, taking it out and cutting down to the mastoid muscle and jaw.

Dr. Gregory.—You mean the internal pterygoid.

Dr. Prewitt.—I mean the internal pterygoid. I cut in between the muscles and dissected them back and cut the nerve. I pulled it out with the effect of relieving the man for some ten months. His face looked haggard and he was the very picture of suffering before that. When he came back he told me that pain was sometimes running down this region opposite the mental foramen. In spite of the fact that there is no inferior dental nerve he has this pain. It is impossible that it should be there, because I took it out, and I concluded to give the man the benefit of nerve stretching as well as resection. So I pulled the nerve until it broke. So that although there can be no inferior dental nerve, yet he has pain right at this point. A few days ago he consulted me again, and I procured some four per cent. solution and injected at least five or six minims without the least effect. In another case where a young lady with a good deal of pigmentary development wished a small growth removed, I painted the surface with the solution. I think it did benumb the part a little, so that I removed it without chloroform, but she said that there was pain.

Dr. Gregory.—How long did you wait after applying it before you performed the operation?

Dr. Prewitt.—Ten minutes I suppose; I painted it repeatedly. I do not think that cocaine is readily absorbed by the skin or the mucous membrane. With regard to the statement that there is intense pain attending the lancing of a carbuncle I cannot agree with the doctor. I think there is very little pain because there is sloughing underneath. When we cut the margin there is pain, but the surface does not seem to be sensitive.

Dr. Papin.—I am not surgeon enough to stick to the surface; I go through integument and all. I believe in cutting well.

GAILLARD'S MEDICAL JOURNAL.—We are glad to know that the publication of this excellent journal will not be discontinued on account of the death of its veteran editor. M. E. and E. W. Gaillard will be the publishers and they have secured an able corps of co-laborators.

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ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting—Dec. 2, 1884.

SARCOMATOUS TESTICLES.

Dr. Prewitt remarked that something more than a year ago he had presented a specimen of sarcomatous testicles which led to some discussion and some question as to diagnosis. One of the members had been disposed to regard it as a syphilitic testicle. He presented now the same specimen and another of the same character removed subsequently. The first specimen was from a man about 29 years of age who had been gored in the scrotum by an ox three years before. After the removal of the first testicle the patient died with tumors in other parts of the body, in the neck and no doubt also in the abdomen; because prior to his death he was complaining of great lumbar pains, etc. He was considerably emaciated, having lost about 50 pounds. After the removal of the testicle he gained in flesh and improved wonderfully; he gained twenty pounds before he left the city. But within perhaps twelve months he died with development of secondary tumors.

The other specimen is from an old man about 65 years of age who received no injury so far as known, unless in riding horseback he may have bruised the testicle. This had been troubling him a year or two and had attained the size which the specimen showed. He was in as good health as he ever had been in his life and there was no indication of a return of the growth so far, the tumor having been removed a year before. There was no syphilitic history in that case, and the clinical features as well as the history precluded any question as to syphilis. It was not a syphilitic testicle in appearance or in the character of the growth, and the doctor did not think we ought readily to make a mistake of syphilitic growths of the testicle, as they present other features that are pretty well marked.

CHOREA.

Dr. Bauduy related several interesting cases. The first was one of chorea brought to him by Dr. McCandless, of Pinkneyville, Ill., which had been unusually obstinate in character. It had resisted all the ordinary means of treatment, and the case was rapidly becoming aggravated and presenting many outside serious

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features. There was decided asthenia, great nervous prostration and some irritability of the stomach. All the usual modes of treatment had been tried, and amongst other things arsenic had been administered internally quite boldly and freely with an absolutely negative result. Dr. Bauduy dwelt upon this point particularly, as he believed that if there is any one remedy that is usually successful in chorea it is arsenic. The usual course of the disease as taught by Trousseau was to terminate after awhile by self-limitation; but those who have had much experience in the treatment of these affections knew that there was a series of cases of chorea which are not so easily controlled by treatment and which do not pursue the ordinary course of self-limitation. Some years ago Dr. Hammond, of New York, very strenuously advocated the hypodermic injection of arsenic, especially in cases where the internal arsenic treatment had failed. Dr. Bauduy suggested to Dr. McCandless that he commence with a three to four minim dose of Fowler's solution, injecting it hypodermically and gradually increasing the dose; a very happy result followed. A marked improvement commenced within a day or two, and after continuing the remedy for a short time the case was cured, and there had not been the slightest recurrence, as is apt to be the case in chroreic affections.

MENTAL VAGINISMUS.

The second case was one which he did not know how to classify. He had never seen any reference to such an affection, and had it not been for the testimony of one of the most eminent physicians in St. Louis, recently deceased, he would not have believed the statement of the patient. A woman who had called on him had stated that she was a virgin after 20 years of married life, and presented a certificate signed by the late Dr. John T. Hodgen, in which he stated that he had examined her in the presence of other medical gentlemen, after she had been married quite a number of years; that in his opinion the patient was unquestionably a virgin after twenty years of married life, and that as the result of the examination there was not found any local uterine disease or vaginal trouble nor any physical condition which should in any way prevent sexual intercourse. The peculiarity of the case consisted in this, that from the very first of her marriage she had had a terrible abhorrence to sexual approaches; that when her husband

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approached her sexually she had made so much noise and was so obstreperous as to alarm the occupants of the house in which she happened to be, and that there also occurred a violent contraction of the abductor muscles so that coition became an impossibility. What was the condition of the sphincter vaginæ is not stated. Dr. Bauduy was satisfied that this had been a monomania with her for twenty years, and that she was mentally unsound in reference to sexual approaches. He had called this mental vaginismus for this reason: While ordinary vaginismus is due to a hyperesthesia of the mucous membrane with muscular contraction, in that particular case he thought there was a hyperesthetic mental condition which created this peculiar condition of irritation and the contractions of the muscles of the thighs and auxiliary muscles which made anything like coitus utterly impossible. Dr. Bauduy regarded the case as unique.

CONVULSIVE TREMOR.

Another case was one of convulsive tremor which he had seen about five weeks before. The case had been some years under treatment and had resisted the usual remedies. The doctor had seen the patient seized with most violent paroxysms. In these he was perfectly conscious; they were not epileptiform, inasmuch as he was able to answer questions and speak intelligibly while under the influence of terrible clonic convulsions which seemed particularly to attack the glutei muscles and the muscles attached to the scapula and ribs as well as those attached to the clavicle. Whilst seated in a chair he would be jerked violently out of the chair; then there would be a relaxation of the muscles and he would fall back into the chair. This paroxysm continued violently for fifteen or twenty minutes, and under its influence the pulse ran up, —it was rather difficult to count it in consequence of tremor of the muscles and tendons of the arms, but as well as he could determine the pulse ran up to 130 or 140. As soon as the paroxysm passed off the pulse would return to the normal condition of about 80 beats. The respiration seemed to be accelerated; there was no cyanosis of the mucous membranes. One peculiar characteristic of the case was the profuse perspiration which poured from him onto the floor, making it quite wet. These paroxysms came on quite frequently. He had had as many as three paroxysms within an hour; some lasting ten or fifteen minutes. Dr. Bauduy admin-

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istered some nitrite of amyl with the result of arresting the convulsion. This was the first relief he had ever obtained. He had recommended him to take a dose of half a dram to a dram of succus conii (English) three times a day. Inasmuch as the attack commenced with irritability of the motor centres he had recommended a solution of the bromide of zinc for the purpose of reducing the reflex excitability, and for the tonic effects of the zinc upon the nervous system. The patient had presented himself a week before, and reported that since he had been taking these remedies he had had but one paroxysm, whereas prior to that he had had sometimes four a day and sometimes more; they seemed to be superinduced by fatigue and excitement.

Dr. Bauduy said that we know little or nothing of the etiology of this condition; that Hammond says a case presented itself to him in New York in which the disease was said to have been superinduced by sexual or alcoholic excesses, and was finally cured by similar treatment except that Dr. Hammond did not administer conium. The clinical features of the disease were extremely simple, he said, and easily recognized. In epileptiform seizures there is absence of consciousness, while in these cases consciousness is always present. Then again we have alternate contraction and relaxation of the muscles, flexions and extensions which are marked and are characteristic permanent features of the disease; whereas in epileptiform seizures we all know that prior to the clonic convulsions we invariably have a tetanic muscular contraction rendering the individual rigid and stiff for thirty seconds; then the clonic convulsive seizure ensues; then the peculiar muscular tremor which accompanies these cases is also quite a marked feature. As regards the pathology he said we know very little about it. The physician who observed it originally, about 1822, supposed it due to some obscure pathological condition of the cerebellum, and subsequently other physicians made the same claim. At that time the doctrine was held that the cerebellum presided over the co-ordination of muscular movements. Present physiological investigations do not claim that the cerebellum has anything to do with co-ordination of muscular movements, these being particularly associated with certain portions of the spinal cord. He said that Dr. Hammond had given origin to a theory which seemed very plausible, that this affection was due to a very hyperesthetic condition of the cortex and also the upper portion

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of the spinal cord, particularly the medulla oblongata, and in confirmation of this view he has made experiments upon animals which would seemingly tend to support his theory. As these, however, were not conclusive, he thought the question to a very great extent still *sub judice.*

INGENUITY OF THE INSANE.

He reported another case as tending to show the peculiar ingenuity of the insane. While physicians in charge of insane asylums are of course held responsible where a patient under insane mania succeeds in committing suicide, it is oftentimes impossible to take all the precautions which are necessary to prevent such a result. He then showed a rope which was made from the bed linen of a patient confined in St. Vincent's Asylum and who attempted suicide by hanging himself. The attendant was attracted by a peculiar noise, and upon entering the room of the patient found him suspended by a rope, of which this was a piece, thrown over the transom. He was cut down and with some difficulty restored. The doctor remembered a patient who opened an artery with a pin, and bled to death before assistance could be obtained. Another patient succeeded in breaking a window-pane and with a small fragment of the glass cut his ulnar artery.

ARSENIC.

Dr. Grindon stated that in two chronic cases of chorea in young women who were inmates of the Poor House, about eighteen or twenty years of age, he had tried the hypodermic use of arsenic, beginning with five or six minims of Fowler's solution and increasing to twenty minims, and continuing for about three months with intermissions, and there was no improvement at all in either case.

Dr. Bauduy stated that in the case of chorea which he had, the arsenic was given once a day and never more than six minims, and it was diluted so as to prevent the formation of abscesses. On one occasion the doctor forgot to add the water and an abscess formed following the administration of pure Fowler's solution. Sometimes by giving too large doses we prevent the favorable action of the remedy.

Dr. Carson said that in a case of sciatica at the hospital they had tried various remedies without any success at all. They commenced with the hypodermic use of arsenic in small doses, three

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drops at first, and gradually increasing to twenty drops once a day with no therapeutic effect at all, and one of the last injections given was followed by an abscess which had been very difficult to heal.

Dr. Hardaway said that he had learned that, in order to get the effects of arsenic the doses must be very small; if large doses are given the object is generally defeated.

Dr. Prewitt asked if Dr. Bauduy had ever met with a fatal case of chorea.

Dr. Bauduy said that he had some years ago but they were in obstetric practice, that the chorea occurring in pregnancy is unusually fatal. When death does occur in adults he thought it was generally in decidedly neurotic persons with family histories which indicated that the patients were subject to various forms of nervous disease. A case of chorea might prove fatal through exhaustion.

Dr. Prewitt said that he had met with one fatal case of chorea when he was in charge of the City Hospital ten or twelve years ago. A child was brought into the hospital about twelve years of age that had been severely frightened and had the most violent case of acute chorea he had ever seen. The boy was thrashing himself in a way that was terrific. They gave him bromides, chloral, etc., and all to no purpose. The boy lasted three or four days and died from sheer exhaustion.

Dr. G. A. Moses suggested that by omitting the ordinary coloring matter of Fowler's solution which consists to some extent of solid particles and may prove a local irritatant, we might improve the remedy for hypodermic use. He had frequently had the coloring matter omitted on account of its taste, which is very unpleasant to some people.

Stated Meeting—Dec. 16, 1884.

SUPERNUMERARY COSTAL CARTILAGE.

Dr. Todd mentioned a very curious abnormality which he had recently met with, a sternum which had on the right side the seven costal cartilages in their proper relations, but on the left side between the fourth and fifth costal cartilages there was a supernumerary one without any rib, that is, there was an unusual space between the fourth and fifth costal cartilages, and in this space a

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portion of cartilage projected a little without any bone upon it at all. All the ribs were there and the cartilages were also formed and in their usual proportions. There was nothing peculiar about the vertebral column.

THIRD STAGE OF PNEUMONIA.

Dr. Glasgow reported a case of pneumonia which had advanced to the third stage, the stage of infiltration with the formation of abscesses. He remarked that most cases of pneumonia either die or get well before they get to the third stage. This man came in about December 6, in an almost collapsed condition; he was covered with a clammy perspiration; there were tracheal râles and dyspnea. He was stupid; they could get nothing out of him except that he had been sick a good while; that was all he could state. On examining his chest over the lower portion of the right lung there was intense flatness, not the flatness usual in pneumonia, but more like that in pleuritic effusion. There was also intense bronchial breathing, spitting up large quantities of brownish fluid four or five cupfuls during the day. The sputa stuck to the cup. This expectoration continued for two days. There was also a certain degree of acidity of the stomach. On the third day he expectorated simply small particles of purulent secretion almost like the sputa of phthisis; there was very little in the cup. On examining the chest a most peculiar sound was heard over the lung, the bronchial breathing had entirely disappeared and had been replaced by what might be called mushy râles; they gave a sound as if air was passing through some very thick fluid such as we would have by stirring up a quantity of mush. On the second day after there were in his cup large chunks of pure pus, some as long as your finger, solid chunks, and these had a peculiar greenish-yellow color. On listening to his chest the mushy râles had entirely disappeared. The whole side of his chest over the infiltrated lung was examined and there was a râle very much like crepitus only a great deal larger; it resembled exactly the sound made by throwing salt on fire, a crackling râle which was dry and differed in different portions of the infiltrated lung. In the lower portion it was a very large dry râle; in the upper portion it was smaller. He was then expectorating these large masses of pus. This condition continued two days; the râles gradually diminishing until they disappeared. On the third day he was simply ex-

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pectorating large quantities of pus just as in a phthisical case, and the râles had almost entirely disappeared. In place of them a large cavity could be demonstrated in this portion of the lung. He said the man was doing well and bade fair to recover.

FOREIGN BODY IN LIVING TISSUES.

Dr. Carson presented a little specimen showing the change which takes place in foreign bodies introduced into the tissues. He said that last May there entered the Sisters' Hospital a patient with a compound fracture of the femur and also of the leg. The limb was placed in a Hodgen splint and the femur united, the tibia failed to unite. After a sufficient length of time they concluded with the consent of the patient to cut down upon the site of the fracture and bore the ends of the bone and introduce a peg of some kind to hold them in place. He had the patient take a tooth-brush handle and file it down to the size desired. This was then soaked in carbolized oil and taken out at the time the bones were bored, and introduced into the ends of them. Sunday morning the peg had been removed by Dr. Tupper. It presented the appearance of a portion of it having been absorbed, and the ivory was softer than at the time of its introduction. After the ends of the bone had been bored and this peg inserted, the patient did very well and was going about, when one day he got drunk and the consequence was that he returned to the hospital with the bone re-fractured. It had united quite remarkably, though there was a slight bowing of the leg forward: that they could not help.

Dr. Gregory had met with the same experience. He thought an unchanged peg would be very much more extraordinary than a changed one. He said he was astonished, when he recollected that these pegs were completely covered in the course of a few hours with leucocytes, that the entire material was not consumed or so changed as to disappear altogether under the peculiar influence which this material exercises upon organized structures. He stated also that Billroth in his Surgical Pathology mentions particularly the effect on these ivory pegs.

SYPHILITIC TESTICLE.

Dr. Carson presented a specimen of syphilitic testicle with a very interesting history. A very intelligent gentleman entered the hospital last September or August a year ago in a very poor state of health. He said that a few months before he noticed that his

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health was beginning to fail; nodules appeared upon his shin and upon both arms; he received medical advice but got no relief. He went from his home in Louisiana to Galveston, Texas, and sought the advice of physicians there, but still got no satisfaction. While in Galveston he improved somewhat from the change of climate, probably, and came north to spend the summer in Wisconsin, and on returning came to St. Louis. He was very much emaciated and had nodules on both shins and also upon the arms. He gave no history of syphilis; he stated that he had been rather dissipated in his early life; that he had run away from home and came to this country, but that he had settled down and married and had children; that at no time had he ever noticed any syphilitic manifestations. Taking into consideration his condition he was placed upon anti-syphilitic treatment and he improved for some time until his stomach rebelled and they had to give up for a time the administration of the iodide. He was also at the same time placed on tonics. For some time he did not acknowledge that he had an enlarged testicle; he kept this a secret and seemed not at all disposed to make it known. Upon examination the testicle was about three times the size of a normal testicle or the testicle on the other side. The organ was flattened and irregular and presented all the characteristics of a syphilitic testicle. During his stay in the hospital he had syphilitic dementia. However upon the administration of mercury and the iodide of potassium he improved, and after his health had sufficiently recovered he allowed them to remove the testicle. Sometime after the removal of this organ the remaining testicle enlarged and became nearly twice its natural size, and when he left, although very much improved in health, the testicle still remained enlarged in spite of all treatment. The nodules had almost entirely disappeared; the one on the right shin remained as a small ulcer. One peculiar and interesting feature in this case and one noticed in several others is the fact that no syphilitic history could be got nor any evidence of the disease. This patient was an inteligent man, well educated and one who would certainly have noticed any secondary symptoms that might have appeared, and who certainly would have been suspicious of any primary sore if he had noticed one. He told me he had had gonorrhea, but it never had any indication of a syphilitic sore that he knew of.

Dr. Gregory said that the difficulty which generally presented

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itself to him was whether he had a syphilitic or strumous testicle to deal with. Where there was a history of syphilis he did not hesitate at all to assume that it was a syphilitic testicle, but occasionally a case comes without any history of syphilis at all and yet this is cured rapidly by anti-syphilitic treatment. He did not believe that in all the cases where the swelling disappeared the testicle was restored. If it be true that there is a bacillus that is present in all cases of tubercle, it might be used to diagnose those cases by the use of the microscope, but he was not certain that we have reached so far. A very interesting case had come under observation about a year before, where a man came to him with a testicle of immense size. He told him that it ought to be removed; that he had a sarcocele. He said "I am not prepared to have it removed, I will wait awhile." The doctor said "If you are defermined to wait awhile I will give you some treatment." He have him a mercurial treatment and the swelling disappeared. In speaking to him after his supposed cure, he said he did not know whether the mercury pills cured him or not; he said he had taken the pills and they salivated him, and his enlarged testicle began to disappear under the influence seemingly of the medicine.

Dr. Carson mentioned that his patient suffered intensely from nocturnal pains in the lungs. He had a family of children who were certainly very healthy, and it looked as if there was no constitutional taint at all in the family; his ancestors had lived to an old age.

SYPHILITIC ULCERATION.

Dr. Tuholske was reminded of a patient who had an ulcer upon the thigh above the knee, which was constantly destroying the tissues in the neighborhood. He used iodoform and the thermo-cautery, and while it would heal at one end it would grow on the other. The question of syphilis did not really occur to him. This was in a lady who had raised a large family and all the children were healthy. This was the first indication of any syphilitic trouble. The husband certainly had no manifestations of syphilis and had certainly left no indications on the offspring. Various treatments were tried and finally the anti-syphilitic treatment, when the patient commenced to get well at once.

Probably the beginning of syphilitic disease of the nerve

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differs in points sufficient to differentiate it from tubercular testicle. First of all, unless the patient had some tubercular trouble in other parts of the body, there would be a question as to its tubercular origin. Then again tuberculosis probably begins at the epididymis and is marked by round nodular or softish swelling that in the beginning is painful and almost always accompanied by signs of inflammation, whereas in a syphilitic testicle the trouble begins in the body of the organ; in the connective tissue situated between the tubules. The induration of the testicle occurs here and it very frequently occurs in both testicles, probably not at the same time but one soon following the other.

Dr. Carson said that while Dr. Tuholske was correct in his statement that the tubercular condition generally begins in the epididymis there were authorities who maintain that it very frequently starts in the body of the testicle between the tubules; in syphilitic disease the trouble almost always begins in the intertubular structures. And there is another point to which he thought Hamilton called attention and Rindfleisch also, viz., the yellow tubercular matter which forms and which is followed by an abscess with adhesions and afterwards an opening through the skin.

Dr. Todd asked whether the fact that mercury and other anti-syphilitic remedies effected a cure could be taken as an indication that the trouble was of syphilitic origin.

STRUMA AND SYPHILIS.

Dr. Gregory recollected when a student having read a book in which it was assumed that scrofula was cured by mercury, and from that fact that sometimes syphilis was at the bottom of these chronic troubles. He had always believed that mercury accomplishes a great deal in what are ordinarily denominated chronic inflammatory conditions, and from this fact it had been sometimes suggested to him that syphilis might be the originator of these troubles. A chronic inflammatory process is commonly called strumous. He had never been taught nor did he believe that struma necessarily implied disease at all; it was only a predisposition to disease, but this leads up to a local declaration of the disorder. He was in the habit of teaching that there was a scrofulous predisposition, just as he taught that there was a rheumatic predisposition.

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Dr. Engelmann said that he had had some experience in the use of mercurials and the iodide of potassium in the treatment of chronic pelvic and uterine troubles, and he knew positively that in some of those cases where there was no syphilitic history these remedies had been beneficial, for instance, in a case of cellulitis following parturition in a healthy mother with healthy children. He regards these as a great aid in the treatment and very valuable even where there is no syphilitic history. He had generally given small doses of the iodide of potassium, beginning perhaps with a quarter of a grain three times a day and increasing it, giving a quarter of a grain probably six or eight times a day and finally a grain; he generally gave the iodide of potassium in solution.

CARCINOMA OF TESTICLE.

Dr. Tupper presented a carinomatous tumor of the testicle. The patient, 58 years of age, married, a shoemaker by occupation, had been able to attend to his daily work at the cobbler's bench. Some four or five years ago he had noticed a painless enlargement of his right testicle which had increased first quite slowly and then rapidly; its growth was not regular but for about three months it had increased very rapidly, and when he came to the clinic at the Sisters' Hospital, his testicle was about the shape and size of a cocoanut or larger; it hung down certainly half way down the thigh. There was no glandular enlargement at the inguinal region, nor did he then nor had he before complained of anything of this kind. He had some enlargement of the glands in the lumbar region. He wished the testicle removed, not because it gave him pain, but because it was in the way. It was removed by the usual method. Before that was done Dr. Gregory had punctured it, and quite a large amount of dark blood was evacuated, but it didn't seem to decrease the size of the tumor to any appreciable extent. On making the incision there were three distinct compartments; the upper one was filled with a clear fluid, very much like that in hydrocele or a simple cyst. Then there was a solid mass of material seemingly carcinomatous, of a pinkish white appearance; this was filled with broken down pultaceous masses. The specimen was examined under the microscope and showed very clearly epitheliomatous cells. The incision was closed with silver sutures; the man left the ward without

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consent before the sutures had been removed. He appeared at the clinic about four weeks after the operation and the sutures were still intact, and had caused no ulceration. The wound was united about one third of its extent and the suture was quite tight. He had had no further pains in the lumbar region.

Stated Meeting, Dec. 30, 1884.

CONGENITAL PAPILLOMATA OF THE LARYNX.

Dr. Todd said that last summer, just before preparing to leave for his vacation, a little mulatto child two and a half years of age was sent to him by Dr. Prewitt. This child was unable to talk at all, breathed with difficulty, and was in the last stage of extreme emaciation; the child evidently had but a short time to live under the conditions then present. The child never had been able to breathe freely, and its crying was more like the mewing of a cat than anything else. Of course this indicated a laryngeal obstruction of some kind. To his great surprise the child submitted at this early age to a laryngeal examination, and he saw that the larynx was blocked with a tumor. The child was so feeble that it could barely hold its head up. Tracheotomy was necessary immediately. Dr. Prewitt performed the operation at Dr. Todd's request. He felt that if this were not done the child might die at any minute, as edema of the larynx was threatened. At the end of one week it had greatly improved in strength, and when he returned in September he hardly knew the child, it was so robust and looked so entirely different. Dr. Todd considered this one of the very rare cases of congenital tumor of the larynx. Mackenzie in his latest work published in 1880 speaks of only twenty-three recorded cases of congenital tumor of the larynx; he himself had only seen two such cases. In the edition published in 1871 he said that such tumors had never been seen with the laryngoscope in any patient less than three years old. Dr. Todd said he tried to remove the growth in the usual method with the forceps, but the child had improved so much at that time that he could not make the examination so as to get a view of the larynx. He had never seen the tumor since the first examination. The child proving refractory he concluded to adopt the method recommended by Voltilini, that of rubbing it off by using the sponge probang. He had no difficulty

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in entering the larynx. He attempted this method without success. On closing the cannula in the trachea the child would speedily become asphyxiated. So he concluded that there was no use of any further operation through the mouth, and advised that the larynx be opened and the tumor extirpated in that way. As the case had been sent to him by Dr. Prewitt, he thought it proper that he should perform the operation, which he did, and the tumor proved to be a papilloma and the entire interior of the larynx was filled with these growths. It would have been of no use to attempt to remove them by the sponge and probang. Whether the child will survive the winter or not remains to be seen.

Dr. Glasgow said that sometime about 1873 or 1874, he saw a little darkey baby, about in his first year, which had never been able to talk; it seemed to have the peculiarity of voice that Dr. Todd spoke of, a sort of squeaky voice; it had very little dyspnea. The child lived three or four months and no post-portem examination was made. This peculiar condition existed from its birth. The youngest child he had ever seen with a laryngeal tumor was nine years old and that was a boy whose history could only be followed for a few years. He didn't think this was congenital.

Dr. Todd asked Dr. Glasgow's opinion whether there might be an intra-uterine cause for this growth. The mother suffered during her pregnancy with tonsillitis at times very severely, and was subject to attacks of tonsillitis. He would like to ask if Dr. Glasgow thought that might have had any effect upon the production of this condition of the child; whether the congenital growth was due to this condition of the mother?

Dr. Glasgow's impression was that it was simply a coincidence.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION. We are assured that the Committee of Arangements at New Orleans are busily making preparations for the meeting to be held in that city commencing with the last Thursday of April. The editor of the Association Journal, urges the literal compliance with the by-law which requires that all persons intending to present reports or papers shonld notify the Chairman of the Committee of Arrangements or of the section in which the papers would belong at least thirty days before the date of the meeting in order that the programme may be as definitely arranged as possible.

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FOREIGN CORRESPONDENCE.

PARIS LETTER.

TREATMENT OF CHOLERA IN PARIS.—DR. EDWARD WARREN BEY.—DR. JULES GUERIN.—PROF. BROUARDEL.—PROF. PETER'S METHOD AT HÔPITAL CHARITÉ.—PROF. CORNIL'S TREATMENT AT HÔPITAL PITIÉ.—PROF. HAYEM.—RECORD.—PHYSICIANS' OFFICES.—HOSPITALS.—MEDICAL STUDENTS.—DRUGGISTS.

PARIS, January 13, 1885.

MR. EDITOR: Intending to stop in Paris only long enough to gain a general impression of the city, it occurred to me that my short visit might be made practical by an inquiry into the treatment of cholera adopted by the Parisian physicians during the recent epidemic. I argued that with their attention directed to this matter by the epidemic in Egypt in 1883 and with the experiences of Marseilles and Toulon last summer, and later of their own visitation, there might possibly have been developed some details of treatment not yet published which would prove valuable. Or if there were none it would be satisfactory to know it. Simple as the inquiry seems, I found that for a perfect stranger in one of the largest cities in the world and unacquainted with the language, it was a laborious undertaking.

However, through the kindness of Mr. Robert M. Hooper, Vice Consul General of the United States, for whose interest and attention I shall always feel grateful, I was presented to Dr. Edward Warren Bey, the leading American physician in Paris, through whom I was able to proceed. Dr. Warren will be remembered as a former Professor in the University of Maryland, who joined the Confederate Cause and became Medical Inspector General of the Confederate Army. After the War he entered the service of the Khedive of Egypt, by whom he was made Surgeon General of the Egyptian army with the title of Bey.

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He has also received decorations from most of the European governments, including the Legion of Honor of France, on account of distinguished professional service.

He resigned his position in Egypt to engage in private practice in Paris, and last summer during the cholera scare proffered his service gratis to Americans in Paris who might have cholera and were short of funds, and further showed his patriotism by volunteering his services to the government as inspector of vessels bound for the United States to insure their freedom from infection. Dr. Warren has just completed a book containing the experiences of his very varied career, including his connection with the celebrated Wharton trial in Baltimore in which it will be remembered he was chief medical expert for the defense.

The doctor not only gave me the names of the cholera savants in Paris, but introduced a young physician, Dr. H. Sicard, a graduate of the Louisiana Medical College and now studying for a Paris degree, who volunteered his services both as escort and interpreter. I was further aided by special letters of recommendation from our able minister to France, Hon. L. P. Morton.

Our first call was upon Dr. Jules Guerin, one of the first authorities on cholera in France, who visited Marseilles and Toulon last summer to study the epidemic privately.

I may here remark that quite a discussion has taken place in the French Academy of Medicine concerning the nature of the epidemic, one party asserting a premonitory stage (premonitory diarrhea) and the other denying it. Guerin is the chief supporter of the first named belief. He is a spare man, rather old but of intellectual appearance, and I am told is very polemic in discussion.

Our reception was quite pleasant and, after an allusion to his published articles, the doctor gave his treatment, which he said is quite simple and the same as advocated and practised by himself in 1831.

In the premonitory stage, he enjoins abstinence from solid food.

For the vomiting and purging he gives charcoal and laudanum.

When the vomiting and purging have ceased, he gives one dose of the sulphate of magnesia to eliminate the materies morbi—one dose only but a good sized one.

In collapse, he treats only the symptoms.

No opium or specific remedies.

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If the body is cold he makes warm applications, but does not use friction.

When convalescing he gives sustaining treatment—iron and alcohol.

He does not believe in the cholera microbe.

He claims to have saved 70 per cent. of his patients, and states that he has had cholera himself five times, the last time after his visit to Toulon last summer.

He asserts that cholera still exists in Paris to-day.

Our next call was on Brouardel, Professor of Medical Jurisprudence in the Faculty of Medicine, one of its youngest members. His age is about forty. Brouardel was President of the French Commission sent to Marseilles, Toulon and other cities of France last summer during the epidemic.

I valued particularly this call because of the high reputation enjoyed by the Professor,and because in a moment's observation I saw that he is a brainy, active man of the present, at just that period in his career when his past is a warrant of maturity and the future that is before him gives assurance of earnest activity.

Brouardel says there has been no cholera in Paris for three weeks, but he expects to witness its reappearance in the spring.

He states that it was undoubtedly brought from Egypt.

As to treatment, since his appointment as President of the Cholera Commission, he had received as many as four hundred letters giving various modes of treatment, but that not one contained any valuable suggestions that were new.

He states that during the last epidemic no advance was made in the treatment of cholera unless we except the experiences of Prof. Hayem with intravenous injections, to be detailed further on.

Brouardel says that all the doctors agree upon the same general plan of treatment viz., treatment of the general symptoms.

To relieve the cramps he recommends hypodermic injections of morphia, yet enjoins circumspection because in some cases, if too large a dose is given, when reaction comes on, the morphia seems to retard favorable progress.

After this assertion by Brouardel that no progress in the treatment of cholera had been made during the recent epidemic,strengthened as it was by the statement of Guerin that his treatment today is the same as it was in 1831, more than a half century ago, it seemed useless to call on others excepting Hayem.

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Yet through the aid of Dr. Sicard I visited the following hospitals where cholera was treated (nearly all the hospitals had cases) viz., the Hotel Dieu, Hôpital Charité, Hôpital Cochin and Hôpital Saint Antoine, the last named having received the greatest number of cases, namely two hundred and fifty. I talked with the internes of these hospitals, and from one who had followed the treatment at the Charité Hospital I obtained the method of Professor Peter, another cholera expert.

Professor Peter's treatment.—Stage 1. Infusion of rice with ten drops of laudanum. No nourishment.

In algid stage.—Warmth, by means of warm blankets, bricks or hot irons; avoid opium. He does not use friction.

In period of convalescence quinquinia, iron, good food, toddy.

For disinfecting the room he uses carbolic acid and borate of soda.

From another interne I learned Professor Cornil's usual treatment at the Hôpital Pitié.

In the algid stage a cordial potion with twenty drops of laudanum. Frictions with turpentine oil, poultices sprinkled with same. For the cramps, morphia hypodermically.

At this hospital hypodermic injections of caffeine were tried in the stage of collapse, but the results were bad, causing gangrene of the skin. Hayem's method and solution (chloride of sodium and sulphate of soda in water) were also employed in ten or twelve cases.

Four pints were introduced into the vein at one sitting. Edema of the legs and sometimes general anasarca followed this operation, also edema of the glottis. One patient is said to have died of edema of the glottis. It is true that one or two cholera patients had edema in whom the intra-venous injections had not been used, still this unhappy complication was attributed to the injections. After due reflection I have concluded to note the above, although it is the statement of an interne.

It is an important matter and if there is any mistake I will rectify it in another letter.

Professor Hayem states he has had no unhappy result from the use of intra-venous injections in his own practice, yet if edema of the glottis has followed in the practice of others, it is as well to know it.

Our final call was upon Hayem, Professor of Therapeutics in the Faculty of Medicine, a man between forty and fifty, whose coal

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black hair, whiskers and eyes give him a striking appearance. I think he was at work on the very subject that brought us; at any rate he showed us a mass of manuscript to be published in about a month in the *Bulletin Général Therapeutique.* He has already published an article on intra-venous injection in cholera in the same journal of November 30, '84.

His treatment in the first stage is salicylate of bismuth in doses of four or five grammes. He also uses morphia hypodermically and frictions with chloroform liniment. When the heart's action is feeble he gives stimulants, and applies warmth to the body if cold.

In collapse he gives hypodermic injections of ether—two, three or four grammes in twenty-four hours. In collapse he also resorts to the intra-venous injection of the following formula:

Water - -	1000 grammes	=	one litre or pint.
Chloride of Sodium	5 "	= -	75 grains.
Sulphate of Soda	25 "	= -	375 "

The above he uses at one injection. Formerly he employed one gramme of carbonate of soda in the solution, but has discontinued it. He has used these injections in ninety cases. When asked the percentage of recoveries he stated that the tables had not been made out. They will appear in his article. He said, however, that he had had no unfortunate result following their use. He showed us the apparatus which he had devised for giving their injections. I purchased one the next day at Galantes for twenty francs (four dollars) and was told that quite a number were sold last summer, showing that the method was used to a considerable extent. I will not attempt a description of the instrument further than to say that it is simple in construction, and consists of a long piece of rubber tubing with a bulb at the centre. One end of the tube rests in the vessel containing the solution, the other is attached to the cannula which is inserted into the vein. At each end of the bulb is a valve and the construction is such that each pressure upon the bulb injects twenty grammes of the solution.

He generally chooses one of the basilic veins and operates with a pair of spring forceps and scissors. First making a transverse incision through the skin and afterwards through the cellular tissue, he grasps the vein with the forceps, and with the scissors cuts transversely. He then introduces a silver cannula about two inches long in which is a close fitting probe, which prevents the admission

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of air. The end of the rubber tube above mentioned is provided with a smaller cannula made to fit nicely into the one that has been inserted into the vein as soon as the probe has been withdrawn.

The injection of one litre (or pint) of the solution generally takes five or six minutes. Sometimes more than this quantity is injected at a sitting. The solution injected is kept warm, about the normal temperature of the body, by immersion of the vessel holding it in another containing hot water, and to prevent its cooling in transit the bulb itself is worked under water of the proper temperature. This also prevents all possibility of air entering through the valves. When from any cause it is difficult to open a vein, he throws the solution into the peritoneal cavity.

In all the modes of treatment above detailed there will be noticed a striking absence of acids or other remedies based on the existence of the comma bacillus. The comma bacillus has very few believers in Paris and I believe that French prejudice has something to do with it, just as British commerce influences English opinion. The fact is American physicians are better able today to take an intelligent view of the cholera question than those of any other country. They may profit by German investigation without their sight becoming entirely microscopic, and by the experiences of last summer without French prejudice or a British commercial bias. Such articles as have recently appeared from the pens of Dr. Frank Hamilton and Dr. Austin Flint are proof of my assertion. Altogether I was disappointed by the results of my inquiries. I have so keen a recollection of the cholera epidemic at the quarantine hospital below St. Louis in 1873 that I had hoped more efficient modes of treatment would be within our resources, if our country should be again afflicted. Perhaps my inquiries in Berlin may give more encouragement. No progress in French treatment in fifty years rather tempts the mind to accept the German theory and try its corresponding change of treatment.

I am told there were about one thousand deaths from cholera in Paris and that it is still a matter of dispute whether the epidemic was imported or was indigenous. The first cases were among the rag pickers and appeared almost simultaneously in various quarters of the city. Brouardal says, however, it came from Egypt.

I was advised by Dr. Warren before leaving Paris to call upon Ricord, not particularly to get his views on cholera, but because of his fame. Moreover, Ricord speaks English and is very courteous

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to Americans. It may be interesting to some of your readers whom I know to have studied under him to hear of the visit which I made in company with Dr. Sicard. A thick-set man with smoothly shaven face, seated in a very large studio, whose walls were entirely covered with books, cordially extended his hand without rising. His age may be inferred from his remark that he left New York in 1820 and he was at that time a grown youth. I am told he is about eighty. Mentally he is vigorous and still engages in a general practice as consultant. After discussing several general topics, among them the French Empire and Republic (he believes in the former for the French people, and thinks America also is destined to have an aristocracy,) I brought up Koch and his comma bacillus. As expected, he gave the French shrug to his shoulders and got off in French a "mot" which Dr. Sicard says is difficult of translation but suggests that the bacillus comma should be called the bacillus interrogation point.

Ricord's manner was very genial. He impressed me as a man of great intellect who would have been distinguished in any profession, whose strong constitution is making a stubborn fight against old age, a man whose past is secure and furnishes a strong foundation for the enjoyable but less efficient present.

At the risk of being tedious I must give a few disjointed facts and impressions picked up while pursuing my inquiry.

First. In making calls on the Professors at their home offices and during their office hours, I was interested in noting their office facilities and method of receiving patients. Brouardel's office was a fair type. We were admitted into a large reception room by a male servant in livery, who seemed to expect our cards. Seeing we were physicians he ushered us into a second room specially provided for the profession, who are given preference over the patients in waiting. The apartments were commodious and elegant though not extravagant, and I particularly noticed in all my calls the absence of those familiar and cheerful "objets de vertu" which so often decorate our doctors offices, viz., "Demonstrations in Anatomy," "Harvey and the Circulation," skulls and other bones and bottled nastiness called wet specimens; in other words there were no marks of the shop, but every mark of the residence of a cultivated gentleman.

As to Paris hospitals, I was disappointed in them. They are massive and cover a large area, but the wards are not attractive,

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and the beds are very close together, though the ceilings, are high. I saw the best of them and none of them can compare, say, with the Cincinnati general hospital. One small matter seems worthy of imitation. Every bed is provided with a frame on which are hung neat linen screens which can be drawn by the patient at will. I was surprised to find that the hospitals have no systematic method of keeping clinical records. The chief of staff may require notes of special cases which are then his private property, but there are no hospital records of cases. At the hôpital Saint Antoine, which accommodates seven hundred patients, I visited the building in which they treated their two hundred and fifty cholera cases. It is about a square and a half from the main edifice, and still nearer to this building is another structure in which small-pox is treated.

I was greatly interested by my visits to the school of medicine and to the Latin quarter, where the students most do congregate.

There are three thousand medical students in Paris and fifty of them are females. There are forty Russian female students, six English, two French and two American.

There are but five faculties in France that are privileged to give the degree of Doctor of Medicine. These faculties are at Paris, Bordeaux, Montpelier, Nancy and Lille. There are other schools recognized by the government which give a diploma that entitles the holder to certain restricted privileges of practice, that is, he may practice ordinary medicine (but not operative surgery) only in a given one of the eighty or ninety departments into which France is divided. To practice in another department, he must petition the minister for a transfer. The course in the Paris faculty extends over six years, and each examination must be passed before application will be received for the next one. No "two-thirds vote" of the faculty will give a student his diploma. I am told that the result of this policy is really a protective tariff against foreign physicians. It is questionable whether the French student gets along any better by reason of the extended period of his study, for I am told that being able to come up for examination only in, say, two or three subjects at the end of the year, he is apt to have a good time for about nine months and study only three. I saw something of their life in a favorite "Brasserie" where the road to learning seemed to be made royal with billiards, cards, wine, beer and coquottes.

The restrictions upon druggists in Paris are much greater than

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with us. No druggist can sell a poison or narcotic without a prescription. Whether this may be the reason I do not know, but I am credibly informed that the opium habit does not exist in Paris. In case of an overdose of an opiate the law is very severe on the physician, which may account for the timid method with which opiates are given. Neilson the actress, you will remember, was given five drops of laudanum by her French physician. There is but one dentist here who gives nitrous oxide gas. *Satis superque.* Truly yours, W. WYMAN.

MISSOURI STATE MEDICAL ASSOCIATION.—We have received from Dr. H. H. Middlekamp a card calling attention to a series of amendments to the constitution of the Association that were adopted at the meeting last year. They are as follows:

1. Honorary members shall consist of those who have served as President of the Association, with such distinguished members of the profession not resident of the state, who shall be elected by a three-fourths vote at a regular meeting of the Association.
2. All members in good standing of regular medical societies of this state, who shall be regularly accredited by the officers of said societies.
3. The annual dues to be paid by all members in attendance (other than honorary) shall be three dollars, and each member shall be entitled to a copy of the transactions.
4. Any physician in the state, not a member, who shall remit one dollar to the treasurer on or before the annual meeting shall be entitled to a copy of the transactions.

It will be seen that the object aimed at by these amendments is to enhance the importance and influence of the local medical societies. No one can now be admitted to membership in the state association except by being duly certified as a member of some local society. The meeting at St. Joseph will doubtless be a large and profitable meeting.

BABYHOOD.—This new journal is not intended to be regarded as a medical journal but we are glad to call the attention of our readers to it, as it seems to supply a need that we often meet, the want of some reliable literature which we can place in the hands of our patients to assist them in the care of their little ones. The numbers of this journal already published are excellent, and we should be glad to see them in the hands of every young mother. It is published at 18 Spruce St. New York.

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COMMUNICATIONS.

STAMMERING A REFLEX SYMPTOM.

CAÑON CITY, COLORADO. January 22, 1885.

Editor Courier:

DEAR DOCTOR:—I have a case to report which may be of interest to the profession. It is something novel to me as well as unaccountable. I was called upon to treat a case of club-foot in a child one and a half years of age. The father was a drunkard. The mother supported the family by washing. There was no money either for medical services or surgical appliances. I deemed an operation uncalled for, and applied artificial muscles with adhesive straps. Both feet were turned inward. The right foot yielded either to nature or to the appliance, I know not which. I lost sight of the case and did not learn this fact till called upon to explain a curious phenomenon which I will relate. Impatient in awaiting the results of the artificial muscles or too indolent to attend to it according to directions, the father had procured a shoe from a shoemaker modeled after a pattern which he had at some time repaired. The child was now between two and three years of age and talking. On fitting on the shoe no complaint was made of pain but in a few minutes the child began to stammer. The mother suspected the cause very naturally when she noticed that stammering ceased on taking off the shoe, and that it came on again the next day on putting on the shoe, and reported the case to me, when I called and found the case as it had been told to me. Now for the cause. Of course it will be rightly said that the stammering was caused by the irritation from the shoe. Here is a field for inquiry. If an irritation of nerves in so distant a part of the body can produce an effect on centres regulating either the organs or the faculties of speech, how susceptible must be the human brain and how careful should the physician be in all cases of abnormal brain action or mind action to inquire after and look for physical causes which may lurk in hidden quarters.

FRANK P. BLAKE.

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CASE OF PUERPERAL SEPTICEMIA.

MITCHELL, IND. February 4, 1885.

Editor Courier:

On January 18, 1865, I was called to see Mrs. S. of delicate appearance, aged about 38 years, the mother of three children. As I entered her chamber she exclaimed "Oh, doctor, I am suffering dreadfully and I am so sick and flowing profusely." Without delay I made a vaginal examination and, as I expected, found the ovum sticking in the cervix. I passed my index finger along side of the ovum and bent it so as to resemble a blunt-crotchet, then directed my patient to bear down with all her power as I removed the offending cause.

I then proceeded to examine her general conditon. Her temperature was 102°, pulse 120, considerable tenderness over the hypogastric region, pain in the right iliac region, and other indications of puerperal peritonitis, which I met in the usual way. Her case progressed favorably up to the night of the eighth day, when I was summoned in great haste. In a few minutes I ascertained that she had had a protracted chill, her fever had come up and her temperature was 105.4° pulse 140: she sweat profusely, her complexion had a deep sallow hue. Her countenance was anxious, features compressed or pinched, respirations hurried. I was convinced that this high temperature would soon be followed by collapse if the poison of the septic material was not neutralized in some more prompt and efficient manner than in the way usually adopted and pursued in cases of puerperal septicemia. On testing her urine it gave acid reaction. I at once set about giving my patient alkalies and stimulants.

℞ Ammoniæ carb, - - - - - - - gr. v.
Spiritus tenuioris, - - - - - - ℥ss.

In wineglassful of water every half hour until her temperature began to decline. Then every one or two hours I washed out her womb by injecting into it water as warm as she could bear. After this I injected an antiseptic solution of crystallized carbolic acid, glycerine and water. The lochia were arrested about or prior to her chill coming on, a few clots of blood mucus and pieces of membrane and other septic matter followed the first injection. I ordered these injections to be repeated once every six hours. In twenty-four hours her temperature declined to 101°. I now or-

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dered the ammonia every four hours and spiritus tenuior or good whisky between, sufficient to give all necessary support up to the 29th, when I ordered her cinchona, iron and strychnia in dram doses three times per day, and gave her over to the nurse. I understand that she is recuperating and progressing toward a rapid recovery. In this case the effect of the ammonia was beyond a doubt antidotal.

Yours, JAMES C. PEARSON.

A CASE OF ACEPHALUS, WITH SPINA BIFIDA.

WINFIELD, Ark., Feb. 7, 1885.

Editor Courier of Medicine: Mrs. L., æt. 18, primipara, of good family history, well developed, with light hair, and fair complexion; menstruated at 12, married February 7, 1884. Husband, a somewhat intemperate man; family history not so good. His age was 23, when married. Mrs. L., menstruated last from February 16 to 19. She complained of great weakness for sometime before her confinement. On the evening of November 13, I was called, but being absent, Dr. F. W. Ledman, my former student, was called to see her. At 11:35 P. M., Dr. L., sent for me to assist him. She was having some few strong pains, and, just as I began to introduce my finger to see what was wrong, its right foot and leg were expelled through the vulva. I found the left leg fast, knee to the left acetabulum, hip to the right, and after some little difficulty I brought down the left foot after ten minutes rest. The pains came on again, and the second one expelled shoulder and head. I felt sure that something was wrong by the head coming so easy. The child never drew a breath. I felt two pulsations in the cord, near the umbilicus. I hastened to deliver the placenta, as she flooded considerably. The placenta was unusually small, thin and soft. The old ladies present when dressing the fetus, found it to be deformed, and called us to see the owl, as they called it. It was a curiosity to me. The baby was well grown, and would have weighed six or seven pounds. The eyes were on the corners, so to speak, of its head. The superciliary ridge was absent, and the frontal bone, from each eye ball down-

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ward to the os nasi, was a gradual curve. The nose was large and, crooked considerably. The ears were large, and stood half a inch above the sides of the skull when straightened up, but they turned off obliquely to the front. The skull had no bony covering on top. From the eyes backward was nothing but a hard, tough, red covering, three inches in width, running down to the sacrum; there was a strip of true scalp on each side of the head, half an inch in width, running down to the cervical region covered with hair about an inch long. The imperfect covering of the brain was not firmly connected to its os frontis. A thin membrane, the dura mater, seemed to be all of any note to cover it. The cord had no true bone to cover it down as far as

the sacrum. The neck was very short, chin long, points of the shoulders went up half way to the ears, and seemed firmly set to that position. The mother laid it to having been frightened by an owl that was caught in a steel trap. As, is always the case, the old women made her fully believe it. Now, as before stated, she ceased to menstruate, February 19, and her husband affirms that it was the middle of March that he told her that he would set her on the owl. Her old aunt says, that it was in the middle of April, that it took place. Now if the husband is correct about the time, and as she was confined, November 13, she was very young with child, if at all at that time. If her aunt is right as to the time she would be but one month in utero gestation; and, what effect could this have had on the fetus when so young? If some of the old contributors to the COURIER have a solution of this question I hope they will tell it. I am indebted to Mr. E. M. Roberts for the preparation of the wood-cuts accompanying this. CHEEVER BEVILL.

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NOTES AND ITEMS.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The following announcement with reference to the 1885 meeting of the A. P. H. A., and the Lomb prize essays will be of interest to the readers.

The Thirteenth Annual Meeting of the American Public Health Association will be held at Washington, D.C., December 8–11, 1885.

The Executive Committee have selected the following topics for consideration at said meeting:

I. The best form in which the Results of Registration of Diseases and Deaths can be given to the public, in weekly, monthly, and annual reports.

II. The Proper Organization of Health Boards and Local Sanitary Service.

III. Recent Sanitary Experiences in connection with the Exclusion and Suppression of Epidemic Disease.

IV. Healthy Homes and Foods for the Working Classes. (See Lomb prize essays.)

V. The Sanitary Conditions and Necessities of School-houses and School-life. (See Lomb prize essays.)

VI. Disinfection and Individual Prophylaxis against Infectious Diseases. (See Lomb prize essays.)

VII. The Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding them. (See Lomb prize essays.)

All persons who propose to present papers at the next annual meeting (prize essays excepted as per conditions elsewhere given) must place the same in the hands of the Secretary at least three days before the commencement of the annual session, as such papers must be examined by a committee before being read. This rule will be rigidly enforced, and all authors must be governed by it. After Dec. 1, 1885, papers must be sent to the Secretary at Washington, D. C., care of Dr. Smith Townshend, Chairman Local Committee of Arrangements. Active and associate members have

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equal rights in the presentation and discussion of papers. The Local Committee of Arrangements is already organized, and active work begun to make the next meeting a large and successful one.

The generous prizes offered by Mr. Henry Lomb will tend to awaken an increased interest in the great work which this association has for years been successfully prosecuting, and will add much to the already more than national reputation of its beneficent undertakings.

The cooperation of all persons interested in the public health, or in any subject allied to sanitary science is respectfully solicited. A circular giving full and concise information regarding local matters, programme, transportation' etc., will be issued in due season before the meeting.

THE LOMB PRIZE ESSAYS.—Mr. Henry Lomb, of Rochester, N. Y., has offered, through the American Public Health Association, the sum of two thousand eight hundred dollars, to be awarded as first and second prizes for papers on the following subjects and according to conditions mentioned elsewhere:

I. Healthy Homes and Foods for the Working Classes. First prize, $500; second prize, $200.

Essays to be of a practical character, devoid as far as possible of scientific terms. They must be within the scope and understanding of all classes, and designed especially for a popular work.

JUDGES:—Dr. E. M. Moore, President State Board of Health, Rochester, N. Y.; Dr. C. W. Chancellor, Secretary State Board of Health, Baltimore, Md.; Medical Director Albert L. Gihon, U. S. Navy, Washington, D. C.; Dr. J. H. Raymond, Health Commissioner, Brooklyn, N. Y.; Major Charles Smart, Surgeon U. S. A., Washington, D. C.

II. The Sanitary Conditions and Necessities of School-Houses and School-Life. First prize, $500; second prize, $200.

The object and intention of these essays is to furnish instruction to those having the care of common schools; construction of buildings, hygienic conditions, managements, etc., as well as valuable knowledge to teachers and parents upon matters allied to school interests.

JUDGES:—Hon. Erastus Brooks, LL. D., State Board of Health, New York; Dr. H. P. Walcott, State Board of Health, Lunacy, and Charity, Cambridge, Mass.; Dr. Granville P. Conn, President State Board of Health, Concord, N. H.; Hon. John Eaton, Com-

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missioner of Education, Washington, D. C.; Col. George E. Waring, Jr., C. E., Newport, R. I.

III. Disinfection and Individual Prophylaxis against Infectious Diseases. First prize, $500; second prize, $200.

This subject will embrace the kinds, value, and relative merits of disinfectants, as well as the methods of use. Also the means that may be employed by the individual to avoid contagious and infectious diseases.

JUDGES:—Dr. S. H. Durgin, Health Officer, Boston, Mass.; Dr. J. E. Reeves, Secretary State Board of Health, Wheeling, W.Va.; Dr.Gustavus Devron,President Auxiliary Sanitary Association,New Orleans, La.; Prof. Richard McSherry, M.D., Baltimore, Md.; Prof. JamesL. Cabell, LL. D., University of Virginia, Va.

IV. The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding Them. First prize, $500; second prize, $200.

Under this head, the conditions and necessities of the American mechanic are to be especially considered and the thorough consideration of a class will be regarded of more value by the judges than a superficial review of the whole field. Original investigations will weigh much in awarding the prizes, while compilations from existing literature or foreign statistics will not find favor with the judges.

JUDGES:—Dr. E. M. Hunt, Secretary State Board of Health, Trenton, N. J.; Dr. A. N. Bell, Editor Sanitarian, New York City; Major George M. Sternberg, Surgeon U. S. A., Baltimore, Md.; Major J. S. Billings, M. D., LL. D., U. S. A., Washington, D. C.; Mr. W. P. Dunwoody, Secretary National Board of Health, Washington, D. C.

CONDITIONS: All essays written for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, N. H., on or before October 15, 1885. Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope. A caligraphic copy of each essay will be made by the secretary and placed in the hands of the judges, so that they will be totally ignorant as to the author.

After the prize essays have been determined upon, the envelopes bearing the mottoes corresponding to the prize essays will be

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opened, and the awards made to the persons whose names are found within them. The remaining envelopes, unless the corresponding essays are reclaimed by authors or their representatives within thirty days after publication of the awards, will be destroyed unopened by the Secretary.

The judges have been selected by the American Public Health Association, the Conference of State Boards of Health, and the National Boards of Health, and are empowered to reject all papers if in their opinion none are worthy of a prize. The essays awarded the prizes are to become the property of the American Public Health Association.

None of the judges will be allowed to compete for a prize on the subject upon which they are to pass judgment.

The judges will announce the awards in the second week of December, 1885, at the Annual Meeting of the American Public Health Association.

It is intended that the above essays shall be essentially American in their character and application, and this will be considered by the judges as an especial merit.

Competition is open to authors of any nationality. All the papers must be in the English language.

It is expected that arrangements can be made to have these essays widely distributed to the public, and to the persons mostly interested in the respective subjects in the United States. The American Public Health Association earnestly appeals to those able to compete to take part in this work, which it is believed will do much to augment the health, comfort, and happiness of the people.

Per order Executive Committee,

IRVING A. WATSON, Secretary.

CHLORINE, BROMINE AND IODINE AS DISINFECTANTS. Dr. Geo. H. Rohé; one of the special committee appointed by the St. Louis meeting of the American Public Health Association for the purpose of investigating the subjects of "disinfectants, germicides and antiseptics" presents the following results of an examination of recent literature with regard to the disinfectant powers of the haloid elements–chlorine, bromine and iodine. The following conclusions are reached:

1. Chlorine is an efficient disinfectant in proportion of 1 part in 100; provided the air, and the objects to be disinfected are in a moist state, and the exposure continues for upwards of one hour.

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2. Chlorine, when used in sufficient concentration to act as a trustworthy disinfectant, injures colored fabrics and wearing apparel.

3. Bromine is an efficient disinfectant in the proportion of 1 part in 500; provided the air be in a moist state, and the exposure continues for upwards of three hours.

4. Iodine in solution is an efficient disinfectant in the proportion of 1 part in 500; the exposure continuing for two hours.

5. The use of chlorine, and in a greater degree of bromine, requires considerable experience in management; when carelessly handled they may cause inconvenient or even dangerous symptoms in persons using them; for these reasons they are not suitable as disinfectants for popular use.

ANNALS OF SURGERY.—The two numbers of this journal which have already appeared are a credit to American journalism. This is the only journal in the English language devoted exclusively to surgery. The names of the editors are warrant of the maintenance of the highest standard of literary merit in this journal. No one who practises surgery can afford to be without it. It is printed so handsomely, too, that it is a pleasure to handle and to read it.

SANITARY RECOMMENDATIONS. The committee of the Association to whom was referred the matter of formulating recommendations to local boards of health with reference to the anticipated visitation of cholera next summer have offered the following:

First—That all surface wells should be closed at the earliest possible moment, and that great care should be taken that the water supply of all cities, towns and villages shall be of undoubted purity.

2. That all privy vaults should be abolished wherever water closets can be supplied, and that wherever the existence of such vaults is necessary they should be rendered water tight in such a manner as to prevent the saturation, not only of the ground surrounding them, but also of the materials of which they are built, and that the contents of such vaults should be kept constantly disinfected and removed to a proper place at frequent intervals.

3. That all stagnant ponds, when practicable, should be disinfected, and when possible the water removed by drainage or

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pumping, and the further accumulation prevented by filling with fresh earth or other material free from garbage or other filth.

4. That great care should be exercised to keep at all times clear and free from obstruction all sewers into which passes the refuse from dwellings, factories and other buildings, and that such examinations should be made as will detect imperfect plumbing in all buildings and the defects be immediately corrected. In this connection special attention is directed to the necessity for the thorough ventilation of all soil and waste pipes, and to the dangers connected with untrapped and unflushed soil, waste and overflow pipes.

5. That extraordinary care should be exercised in reference to all tenement houses, lodging houses, and in general all places where large numbers of human beings congregate, that no accumulation of garbage or other filth be permitted in cellars or yards, and that frequent and thorough cleaning and whitewashing of such structures be required, and that householders should frequently and thoroughly examine their yards, cellars, closets and other out of the way places, to see that no filth of any kind has been deposited there.

6. That the food supply be rigorously watched to exclude from the market all unwholesome meat, all milk adulterated or from diseased animals, and all unripe fruits and vegetables, and that cow stables be kept at all times clean, well whitewashed and free from all excremental accumulations.

7. That all garbage, kitchen and household refuse should be promptly removed from dwellings, stores and other buildings to a proper place where it may be destroyed by fire or otherwise disposed of in such a manner as to occasion no nuisance.

8. That such material should never be used in the filling of lots, or disposed of by throwing the same in streets or vacant property where it may decompose and exhale offensive and deleterious gases.

9. That the attention of the authorities of all institutions, both public and private, and of individuals as well, be drawn to the great importance of maintaining a habit of personal cleanliness in the persons under their charge, as being one of the most efficient means of warding off an attack of cholera, or, if it has once appeared, of greatly reducing its virulence and fatality.

10. Should the cholera appear in any place in this country the health authorities of the place should have immediate notice of

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the first case, in order that prompt action may be taken for complete isolation and disinfection.

11. That all authorities of states, cities or villages be urged to adopt measures which will result in the amelioration of all conditions, such as have been referred to in the foregoing propositions, with the warning that in the opinion of this conference such conditions, if permitted to continue, will greatly promote the spread of cholera when it comes, and with the assurance that if requisite measures are promptly taken to remove them, the disease will be less likely to attack a community so prepared, and if attacked such community will be better able to cope with the disease and to reduce its ravages to a minimum.

STATUS OF MEDICAL COLLEGES.—Of the forty-seven medical colleges whose diplomas have been presented to the Illinois State Board of Health, twenty-six have so far complied with the schedule of minimum qualifications established by the Board as to warrant the acceptance of their diplomas. In the remaining twenty-one cases the diploma has been accepted as evidence of the applicant's proficiency in the branches or subjects claimed to be taught by the given college; but certificates are issued to such applicants only after they have passed a satisfactory examination by the Board in the branches or subjects omitted by their respective schools.

COLLECTING URINE.—DR. UHLER recommends the following method for collecting specimens of urine for examination. Place three carefully cleaned receptacles in a row and require the patient to void about one-third of the contents of the bladder into the first, then passing quickly to the second to void nearly all the rest in that, but reserving the dregs or last half ounce for the third. The first will contain the contents of the urethra or outer part of the vagina, so that if there be pus or blood in these external parts it will be found in considerable quantity only in this first portion of the urine that is passed. The second will contain the average contents of the bladder; while the third will consist more largely of sediment. By examination with the microscope we are able to diagnose by exclusion where pus or blood comes from and treat the patient intelligently. Dr. Uhler thinks this method should be adopted as a part of routine by the life insurance examiner.—*Md. Med. Jour.*, Jan. 10, 1885.

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ST. LOUIS
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ORIGINAL ARTICLES.

AURAL HALLUCINATIONS AND FALSE HEARING IN MUSICAL PEOPLE DUE TO THE AUTOPHONIA OF DISEASES OF THE EAR.[1]

BY SAMUEL SEXTON, M. D., *Aural Surgeon to the New York Eye and Ear Infirmary.*

THE writer has often been struck with the great distress experienced by musical persons when their auditory functions were deranged by disease, and some of the sufferings experienced by them were described in a paper on "False Hearing and Autophony in Singers, Speakers, and Performers on Certain Musical Instruments," which was read before the New York Academy of Medicine and published in the *Medical Record*, January 22, 1881. Since then a musical journal, the *Keynote*, in its issue of February 9, 1884, in referring to the above paper makes the following abstract under the caption of "singing out of tune."

1 Dr. Sexton sends with this article a note stating that it has already appeared in a French journal, the *Revue Mensuelle de Laryngologie et de Rhinologie*, but has not been published in English.

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"The difficulty so often experienced by singers in 'taking their tones' as the generally accepted phrase is, has been variously explained, and is certainly a matter of interest to all concerned, both in the musical profession and among medical practitioners. Singers who had been assured by physicians that the difficulty depended upon some affection interfering with the action of the vocal chords, have found that they were in no way benefited by having their throats treated, although hoarseness and its consequent defective enunciation might be thus cured. The fault was found often to be in the ear, in proof of which recovery has followed aural treatment. The *modus operandi* of this false-hearing may thus be summed up: Defectiveness in the hearing organ permits some of the strains of sound to intrude themselves into the back door of the ear, as it may be termed, instead of wholly coming out of the mouth and then going around to strike the ear-drums in a normal manner. In other words, when the performer begins to sing, the voice is propagated upward through the column of air in the throat to the vault, or summit of the pharynx, where vibrations, of which it is composed, not only escape outwardly through the mouth, but also leave the air and *keep on ascending through the solid tissues of the head* until they reach the back-door of the ear, which, in the normal state, is always closed to sound, but now being found ajar permits the voice to enter. Now it is this back-door intrusion that gives rise to the trouble, since the singer cannot take cognizance of notes which knock upon the front and rear of the drum of the ear at the same moment. The duration of this confusing, and to the tuneful ear distressing, malady depends on the causes that give rise to the normal obtrusionist. Practically, the singer finds that somewhere in the scale this false-hearing begins, depending, probably, on the intensity of the tone; and on striking a certain note the voice sounds false in the affected ear, or in both of them, if both ears are affected. He cannot either take a note with confidence to himself, or sustain a tone in unison with vocal or instrumental music. A singular feature about the trouble is that it is not always constant, and may come on with a mere cold in the head. Yet it sometimes becomes permanent and unless promptly arrested is a se-

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rious matter. Instrumental musicians and actors are, it is almost needless to add, likewise sufferers from this curious anomaly."

To the above description it should be appended that the sound of the voice may, under favorable conditions, also pass from the pharynx to the ear *via* the Eustachian tubes; such transmission is aerial, and when occurring coincidently with transmission through the solids would, owing to the interference occasioned by different tones being heard at the same moment, increase the confusion of hearing. Autophonia may, moreover, arise from acute ear inflammation with closure of the Eustachian passage, the aerial tract being then unavailable for the passage of sound.

However serious the consequences of false hearing, and they have been shown to prevent tuneful singing, the acoustic phenomena attending the more decided impairment of the ear structures are very much more to be dreaded, since the transmitting structures are then even less responsive to vibratory influences, and harmonious impressions can no longer be produced on the musical mind; singing or instrumental performances are not only impossible but the very perception of music gives rise to disagreeable emotions. It would seem that in certain derangements of the euphonious ear by disease, the back-door of the organ is thrown wide open to the wild uproar of tuneless noises, and that besides the bewildering effect of the autophonous voice cognizance is taken also of the sounds propagated by the busy circulatory movements occurring always, though unheard in the healthy state, in the blood vessels which course near the ear: in two of these, the carotid and temporal, quite large streams of blood flow rapidly. These create such noises in the ears as rushing or falling water, the waves of the sea, the wind sighing through forest trees, or the loud piercing hiss of escaping steam; even the slightest noise awakened by minute arterioles, or the gurgle of the larger, but sluggishly moving venous circulation, is plainly distinguishable. The din sometimes experienced seems to be altogether out of proportion to the origin of the sounds, and, especially in nervous subjects, the vibrations caused by the larger vessels and by the autophonous

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voice often seem to possess the pitch of thunder or artillery detonations—the head and ears being fairly rent and split with the resounding clangor. I have even known persons to declare that the sensations experienced were to be compared to the rushing and rattling movements of a railway train traversing the head.

The appalling effect of these deafening and piercing reverberations can be better understood when it is considered that the head in autophonia very often seems like an echoing cavern in which these violent sounds, consisting in part of slamming, cracking, snapping, knocking, clashing, rumbling, humming and hissing noises, suddenly manifest themselves. Indeed, it would appear that almost every conceivable acoustic disturbance in the seemingly vacant and resonant dormitory of the intellect may be experienced in the subjects of this affection. That the impact of these autophonous vibrations often gives rise to cerebral disturbances, though not always to the extent of producing unconsciousness, and leaves the patient in a prostrate condition, can be readily understood. These disturbances may go on for a considerable length of time, slight singing or buzzing noises only being experienced, without very great discomfort to the patient; sooner or later, however, exacerbations occur. The aural symptoms are first very much increased from some cause; this may consist in a severe head cold accompanied by aural catarrh, or some mental disturbance as over-work, worry and the like. In woman the period of menstruation often serves to bring on an attack. It is noteworthy that in quite a large proportion, if not in all of these cases, there is *better hearing in noise*, and patients quite frequently experience but little inconvenience in its midst. As would be expected, therefore, the onset of the trouble usually occurs during the quiet of indoor life; it is often ushered in by "a rush of blood to the head," vertigo, and great nervousness. The effect on the mind of a person whose training has largely consisted in the study and enjoyment of harmonies, of such annoying and tormenting experiences, is often to produce veritable hallucinations. In order to more fully comprehend the causative factors in these cases it may be well to briefly allude just here to one or two points concerning autophonia or false-hearing. This state, of course, embraces

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tinnitus aurium, or noises in the head, and although seemingly consisting of unreal and illusory manifestations, is, in fact, when its *modus operandi* is considered, composed of most consentaneous phenomena, since the undulatory vibrations to which it owes its origin are always propagated through physical agencies. In other words, sounds and noises in the ears (and head) are, as a rule, never perceived unless produced by vibratory movements arising from the performance of the physiological functions of speech, respiration or circulation. The patient who finds himself subject to these strange phenomena—taking cognizance of seemingly unnatural and obtund sounds—cannot get rid of them so long as the disjointed or loosened ear mechanism prevents normal transmission. With this brief digression we will return to the consideration of the hallucinatory period which succeeds to the nervous "storms" or exacerbations to which allusion has been made; this consists in an interval of comparative rest—autophonia is less marked, with longer or shorter periods of entire exemption even, and it is *then* that the mind, though not disordered to the extent of absolute alienation by the strain, may yet be strangely fantasied—and it is just here that the wits seem "to go a-wool-gathering" and strange hallucinations take possession. The musical person under these conditions naturally enough gives harmonious coloring to the acoustic phenomena experienced; thus, the somewhat rhythmical impulsion of the fluid in the large blood-vessels coursing alongside of the ear gives rise to sounds resembling wave-like murmurs or sighing zephyrs. Other sounds have no resemblance to the motion of confined fluid or air, but are metallic, sometimes like the vibrations which succeed to the clapper's final impact upon a large bell. Other sounds again are intensely high in pitch, comparable with the cricket's singing. In persons who experience even moderate tinnitus no great stretch of the imagination is needed to fancy the existence of musical sounds. In susceptible persons the most simple incident, as the song of a bird or the sight of a church known to contain an organ, may give rise to the conception of musical strains; even memory unaided by aught except reverie may recall forgotten airs. When the right key is once touched imag-

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ination yields to the luring fantasy. It has doubtless been noted by other observers as well as by the writer that autophonia may affect coarse and brutal persons, or the culpable mind generally quite differently than musical or refined people; the effect in the former is often to create hideous or demoniacal imaginings.

Some examples of aural hallucinations due to the acoustic phenomena under consideration are given below:

CASE I.—During 1877 a friend of the writer, 67 years of age, a gentleman extravagantly fond of music, and himself once a performer on the flute, of no inconsiderable ability, became subject to these experiences after frequent attacks of severe head colds, accompanied by very considerable but temporary deafness, due in great measure, he believed, to living much of his time in overheated in-door air. He was at this time subject to much worry and anxiety about business matters. After experiencing an annoying roaring in the head for some six years—the noise resembling at times the sound produced by a water-fall—the deafness rapidly increased in the left ear, and for two months before he consulted me about the trouble he had suffered much from giddiness and unsteadiness of gait. The vertiginous symptoms were at times very severe; on more than one occasion when at the worst he fell prostrate upon the sidewalk, and once the attack was grave enough to require the assistance of a passing friend who called a carriage and took him home. At this time his fretting increased and various hallucinations were experienced; for example, his head seemed full of the roar of street noises, and it only required the sight of a church to set going the sounds of an organ in the affected (left) ear. Very often when walking along the streets or when in his own house, he found himself listening to the apparent tones of an organ; no other instrument in fact seemed to enter into his thoughts or to be so well suited to disturb his ear; even the music of the organ was composed of disconnected chords, and this disjointed and incomplete perception annoyed him greatly. The most distressing experience, however, was the apparent singing of Canary birds in the ear—these having no existence, although, he could have sworn that these songsters were singing near by. It is

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notable that the Canary's song was anything but agreeable to the patient since its natural quality does not consist in a continuous flow of melody, but is composed of "shakes" such as might be made with an instrument of high pitch like the oboe (hautbois.) The musical fancies were not all disagreeable, but the autophonia, hallucinations, and financial difficulties altogether brought about a nervous state which for a time made life miserable in the extreme. On one occasion he was induced to attend a concert in the hope of diverting his thoughts into a more agreeable channel, but the music seemed discordant and was rather confusing than soothing in its effect; finally it became so painful as to be unendurable, and he fled from the room. Of late this patient has very much improved, and although he still has much tinnitus, and remains inconveniently deaf to conversation, hallucinations no longer exist and the capacity for musical enjoyment has returned.

CASE II.—In this instance the patient was a lady 51 years of age, who came to consult me in 1877. There was a history of deafness and tinnitus of several years' duration, after which attacks of the character under consideration began to come on with flushing about the face and head, with vertigo and great nervousness. The tinnitus experienced was most painful, she herself designated it as "frightful, like the rattle and crash of a train of freight cars" at one time, whilst at another it seemed "like the rumble caused in a room overhead by rolling barrels over the floor." Some times she heard "the rushing of water or the intense roar of steam escaping from the steamer's funnel" and other disagreeable sounds. Finally, after becoming exhausted by a severe attack an interval of comparative repose ensued, and during this she fancied that she heard the singing of a church choir in the left (worse) ear. This occurred in the retirement of her own room where quietness prevailed, and has since frequently recurred. A singular feature about this case is that when upon the street, in a railway train, or where there is much noise she not only hears much better, but is quite free of the distressing acoustic phenomena above described.

CASE III.—This patient is 72 years of age, a German, and has been an accomplished teacher of music. He is now in his se-

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nescence and experiences hallucinations in a remarkable degree. He was first seen in February, 1884, and gave the following history: General health always has been good, but has suffered from nasal catarrh, during exacerbations of which hearing for ordinary sounds was difficult and there was autophonia, as well as inability to distinguish the notes of a piano. During the past five years, at infrequent intervals, he has had—in both ears—otalgic attacks. Deafness has become much greater during the past year, obliging the patient to abandon teaching, since he is no longer capable of detecting the exact key of a note—"it would sound either sharp or flat." The tympanic membranes gave evidence of long-standing aural catarrh. Autophonia is now well marked, tinnitus constant, and he hears only shouting voice in both ears at ten feet distance. It is found that he can distinguish harmony on the piano from discord when these different expressions are intensified so as to be well heard, but he fails to detect the difference between a full harmonious chord and one which is rendered slightly inharmonious by the introduction of one or more discordant notes. In respect to the patient's hallucinations it may be said that they have been experienced in some degree for four years, but during the past year the musical experiences were especially marked. He states that if after composing a certain air, he then proceeds to play it on the piano—finishing the first two or three bars, and then stopping—the rest of the piece is immediately completed by a full orchestra, apparently, and played through correctly. When alone in his own room familiar orchestral airs are heard at times; if any part is rendered incorrectly it occurs to him at the moment "that was played wrong!" when immediately the piece is repeated, and this time correctly. Thinking of an air will at times suffice to produce either an instrumental or vocal rendering in the ears. He fancies that his daughter, who has been dead for a year, sings familiar airs to him. Ordinary street sounds, as the rumbling of trucks, stages, and horse-cars, sound musical, like the intonations and notes of a full orchestra. There are intervals after performing the Valsalvan experiment, or swallowing, when the street sounds mentioned above are entirely stopped. The patient makes the sin-

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gular mistake of believing the tinnitus, etc., to be subjective or imaginary, whilst the musical tones and sounds made by fancied visitors from another world he believes to be actual.[1]

CONCLUSIONS.

Autophonia may arise in the course of any acute or chronic disease of the transmitting mechanism of the ear, and it is as likely to appear in simple aural catarrh consecutive to or independent of a cold in the head, as in the more grave aural diseases.

When the phenomena occur in singers or instrumental performers, singing or playing in tune becomes difficult or impossible.

When the ear mechanism giving rise to these symptoms is yet more gravely affected, mental distress is greatly increased and in very nervous persons aural hallucinations may occur.

Persons affected by the trouble frequently assign the cause to some disease of the vocal organs, but treatment based on this supposition is unavailing, and a cure can only be brought about through attention to the organ of hearing. Fancied throat troubles are, of course, much more likely to exist in subjects where auro-neuroses are also present.

The prognosis in the milder attacks is favorable, the unpleasant symptoms disappearing under appropriate treatment. In the more severe cases the patient may be relieved of the hallucinations and extreme nervousness, but false hearing, tinnitus and more or less deafness may remain, especially in patients somewhat advanced in life.

Restraint has never been necessary in any case of aural hallucinations to which the writer's attention has been called, but when vertiginous phenomena are marked, the assistance of a companion may be required when the patient goes upon the streets or has to make descents of stairs, etc. In the treatment of most of these cases the relaxed state of the drum head must not be overlooked.

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1. I am indebted to my assistant, Dr. Wm. A. Bartlett, for carefully taking down the notes of this interesting case.

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Autophonia—As the term is employed in this paper, autophonia is a condition in aural affections causing the patient when speaking or singing to fancy that his own voice comes from within the head, instead of leaving the mouth and going around to the ear as usual. The voice of the affected person can, however, be heard by others. Besides the phenomena of tinnitus alluded to in the paper as being embraced among autophonous symptoms, there is nearly always experienced an indefinable sense of "numbness" or "dumbness" of feeling or perception in the region of the affected ear which gives rise to a distressing lack of confidence in the certainty of audition.

SOME NOTES ON SMALL-POX.

BY JOSEPH GRINDON, M. D., *Formerly Physician to Small-Pox Hospital, St. Louis.*

[*Read before the St. Louis Medico-Chirurgical Society, February*, 10, 1885.]

IT is not my purpose this evening to read a set paper on the etiology, symptomatology, course and duration, etc., of small-pox, but as it has often been remarked that there have been no two epidemics or periods of prevalence of any infectious disease but what have presented some differences in their course or degree of severity, dependent probably upon wide-working causes affecting the health or constitutional disposition of the community at large, I have thought that a résumé of notes taken at our small-pox hospital during a period of service extending from November 1881 to July 1883 might be of some interest. The total number of cases coming under my observation during that time was 579.

And first a few words as to the duration of the period of incubation. Watson calls it "from nine or ten days to a fortnight." Dr. Dickson places it at "somewhere between seven and twenty-one days", and adds that the average date of the attack is fixed by some at the ninth, by others at the fourteenth day. Trousseau says "between eight and eleven days." Curschmann says "from ten to thirteen, less frequently fourteen, or eight to ten, in one case five." Collie, "about thirteen."

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The reasons for this diversity of opinion are obvious; first, because the number of days probably does vary; and second, because of the extreme difficulty of arriving at a correct conclusion as to the exact date of reception of the infection. In some instances, however, I was able to determine that the period of incubation lay between certain extremes, or that it must have fallen short of, or exceeded, a certain number of days. Thus:

It lasted in	one	case	between	14	and	18	days.
"	"	"	"	7	"	18	"
"	"	"	"	11	"	15	"
"	two	"	"	12	"	14	"
"	one	"	"	10	"	14	"
"	"	"	"	10	"	13	"
"	"	"	"	10	"	12	"
"	two	"	"	7	"	12	"
"	one	"	"	10	"	11	"
"	"	"	"	9	"	11	"
"	"	"	"	7	"	10	"

Its greatest possible duration was, in one case 19 days, in one 17, in two 16, in four 15, in three 14, in one 13, in one 12, in three 11, in two 7 days. In one case it was proved to be not less than 13 days.

But here a fact presents itself which introduces a new element of obscurity. The thought has again and again forcibly suggested itself that the relative value of predisposing and exciting causes, or, to state it differently, the variation in the susceptibility of the organism to infection under different conditions, has hitherto not been properly appreciated. To illustrate, it is pretty generally conceded that a low degree of atmospheric temperature favors the development of this disease, that cold, wet, "raw" weather acts as a predisposing cause of variola, the greater number of cases appearing during such weather. But now the surprising fact is that it was observed so constantly that it was surely owing to something more than fortuity that immediately following a marked fall of the thermometer, that is to say within twenty-four to forty-eight hours, there would be a fresh accession of cases to the hospital, say a batch of five

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or ten with others coming in until the weather moderated, when the number of new cases lessened, to be again increased with the next return of colder weather.

The question here is, if we may exclude the theory that this was only a succession of coincidences; did the change in the weather act as a predisponent; did its influence so increase the susceptibility of the individual to disease that he fell a ready prey to the infection, or, on the other hand, did the meteoric influence determine or hasten the invasion of the disease where the contagion had already effected an entrance? In the one case, even supposing that the exciting cause was ready at hand, it would show that the period of incubation may be very short, much shorter than we are disposed to believe; in the other, that this stage, though perhaps longer, is at all events variable as to its duration, as it is presumable, under this hypothesis, that had the temperature remained equable, the case would have declared itself later, and not on the same day with several others, it being reasonable to believe that these others, sometimes coming from different parts of the city, did not all become infected at one and the same time. However this may be. it seems hard to reconcile the facts with the traditional ten to thirteen days or thereabouts of larvation.

As to the symptoms accompanying the inception of the disease, it would seem that their violence bears a varying relation to the later complexion of the case. Some very mild cases have formidable prodromata and *vice versa.* As a general rule, however, violent delirium betokens great danger. Another symptom of significance—mentioned by Heberden—is the location of the dorsal pain. The lower down this pain, the more grave the prognosis; the higher, the better. A fever of 104° Fahrenheit may also be reckoned unfavorable. None of these signs, however, are to be considered as reliable; much more positive in their import are epistaxis, metrorrhagia and other hemorrhages. These, however, usually occur later on. Of great significance also is the duration of the period of inception. It would seem to be a rule with few if any exceptions that the length of this period is in an inverse ratio to the severity of the disease. Cases where the eruption appears in less than forty-

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eight hours are usually of the severest; whereas when it is delayed three, four, or five days, a safe issue may almost certainly be predicted. I should qualify this by saying that in some mild cases of varicelloid there were no symptoms of any kind observed by the patient before the appearance of the cutaneous manifestation. In typical cases, the period of invasion seemed to be pretty uniformly forty-eight hours. In the average run of confluent cases it would not vary more than two to four hours. In some cases the period of invasion, as characterized by fever and other prominent symptoms, was preceded by a feeling of languor, malaise, etc., lasting a week or longer.

It will be noticed that I have followed Marson in using the name varicelloid, instead of the more usual but incorrect "varioloid." The latter is clearly a misnomer, since modified smallpox is not *like* variola, but *is* variola, while it may truly be said to be *like* varicella.

In all but the worst cases, the distressing symptoms of headache, backache, nausea and vomiting, etc., disappeared or underwent a marked remission, for a time at least, when the cutaneous accident declared itself. Where these persisted unchanged, the termination was usually a fatal one.

The variolous eruption proper is preceded, say the authors, I should rather say accompanied, in a certain number of cases, by an adventitious rash. In two cases this was an urticaria; in one an erythema, which was of a vivid hue, covered the entire surface of the body, and closely resembled that of scarlatina. In other cases it was partial, being limited to the breast and arms. Its occurrence in any shape was rare, and its duration from two to three days. When purpuric in character it did not necessarily have the same sinister significance that such lesions would possess a few days later. In the former instance the patches are smaller and more circumscribed than in the latter.

The *eruption*, as it is the most prominent symptom, so also is our surest guide in determining the character, and with scarcely less certainty, the future issue of the case. From the first or second day of its appearance, it tells a tale whose import can never be mistaken by the trained eye. Full, plump, well-shaped papules, or later, vesicles, with regular edges, and im-

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parting a sense of tension to the hand, looking at about the fifth to seventh day like a shower of large glistening pearls with here and there perhaps a fleck of gold already showing against the silver skin for in these favorable cases the skin between the vesicles retains at first its sound appearance with well-marked umbilication, constrast with the flabby, pasty-looking, dead white pustules met with in unfavorable cases. The doughy look of the face in these, the worst cases of the confluent type, once seen, must always be borne in mind. There is a total absence of the gloss or sheen seen in the type first mentioned. In favorable confluent cases we have marked tumefaction of the hands and face just before maturation. This is, I believe, less frequent and less marked in cases having a fatal termination. It often lends to the face an appearance almost grotesque; the brows overhang, the nose having exceeded the bounds set by nature and encroaching on the domains of adjacent features is hardly recognizable. The change in appearance about the bridge of the nose is especially characteristic, it being broadened and seemingly flattened out, but the rest of the face coming up to its level. The looser tissue about the lower part of the face and neck swelling out, give to the head an outline strikingly like that of a ripe, juicy, pear. When the tumefaction suddenly disappears and the vesicles empty, the prognosis is grave. The skin at times looks as though it would burst. The hand passed over an affected arm or leg thickly bedecked with plump pustules recognizes a hardness, a tension, and withal a smoothness that is not altogether unpleasant to the touch.

Still worse is it when the rash comes out as a fine, measly-looking, at times, almost imperceptible agglomeration of minute red points; sometimes looking as though a red powder had been sprinkled over the surface, at others leaving no interval of uninvolved skin, and bringing up the whole face in one tumid mass, counterfeiting to a degree calculated to deceive any but the most practised observer, the flush of erysipelas. "*Nunc erysipelatis ritu, nunc morbillorum*", says Sydenham. There is, however, a leathery hardness about the surface so implicated that tells its own story; besides (with a few exceptions in our cases) there is not the highly polished appearance

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of the epidermis found in erysipelas. It became with us a matter of common remark that the greater the difficulty of an early diagnosis, the less were the chances for a happy termination.

Later, in the stage of vesication, the cuticle is raised, not in separate vesicles, but in large patches, involving the whole forehead, perhaps all the face, and sometimes almost the entire area of the body, at times presenting the counterfeit of a burned surface, at times of a dusky gray hue. When the eruption is not so thick set the appearance is no less typical. Here we find flattened, baggy vesicles of a livid blue or purple, edges irregular, with apparently no tendency to maturation. Instead of this phenomenon, a brownish, fetid, disgusting ichor oozes up in droplets which, running together, form flat softish crusts. Instead of well-marked umbilication, there is a shallow, saucer-like depression, darker in color than the periphery. This soon deepens still more in hue and turns black. Some of the vesicles are black from the very first, being filled with exuded blood, these are often of a little better shape than those containing serum. In some instances they would coalesce so that the greater part of a leg or arm would take on this sable uniform. Together with these manifestations, one may look for epistaxis, melanotic passages, hematemesis, hemoptysis, hematuria, metrorrhagia, etc. The eyes are bloodshot, the adnata sometimes being black from effusion of blood under the conjunctiva, giving the patient a most fantastic aspect. Vibices and ecchymoses appear in various parts, oftenest where the perspiration is most profuse, as about the axillæ, groins, lower part of abdomen, inner aspect of thighs, etc. The contents of the vesicles disappear, are reabsorbed, leaving the shrivelled sacs nearly or quite empty, and the patient sinks from blood-poisoning, if indeed he has not been carried off before by a throat or other complication. It is of this type that Watson says, "I believe that these appearances augur in all cases a fatal result." Curschmann says, "the cases which terminate in recovery are extremely rare," and admits that all of his own cases died. Death comes to the sufferer's relief usually about the seventh or eighth day of eruption, seldom or never later, but often earlier, when a

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hemorrhage may be fatal on the third, second, or even first day.

When the vibices, ecchymoses or blood-stained vesicles occur only below the knee, they are of no particular significance. Indeed there are few cases where they may not be found in this location at some time in the history of the case.

In some hemorrhagic cases, however, the eruption is almost or altogether suppressed. Twice, in cases in which the immediate cause of death was gastric hemorrhage, we saw exemplifications of this, one case having about a dozen papules, and another only one. There were no other cutaneous manifestations of any kind, except the pallor incident to the loss of blood. As a general rule, however, where the eruption is suppressed, there are other skin symptoms of a striking nature, the immensely swollen head with a tense, glistening epidermis showing a vivid blending of black, purple, blue and red, form the never-to-be-forgotten picture of purpura variolosa. This is quite different from and should not be confounded with the erysipelatous appearance sometimes seen early in the eruption and already mentioned.

In a few rare instances in which the initial symptoms and character of the eruption were most threatening, there seemed to come, on about the fifth day of eruption, a sudden and gratifying change in the type of disease. The vesicles would all dry up, leaving hard, horny eminences, not at all like the ordinary scab. In fact, there would be no maturation, and hence no fever of maturation, but the contents would become inspissated and dessicate within their envelopes. These cases have been designated by the names of variola verrucosa, variola cornea, stone-pock, horn-pock, wart-pock. The "warts" take much longer in detaching than the ordinary scabs. They differ from variola varicelloides in the much greater intensity of the symptoms during the periods of invasion and commencing eruption. In one instance the first part of the case was accompanied by epistaxis, a purpuric rash and staining of the vesicles and a measly emerging eruption as in three cases recorded by Trousseau.

Of the corymbose form I have never seen an example, al-

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though a slight tendency to grouping on the part of the papules was a common phenomenon.

In summing up the conclusions which may be drawn from the character of the eruption, we may remark that while Sir Thomas Watson was right in saying that "the system suffers commotion, distress, and peril, in proportion to the quantity of the eruption," he did not here express the whole truth. The factor of quality has also to be taken into account. A more complete formula for prognosis would be that the danger increases as the number of pustules, but inversely as the development of each individual pustule.

There is one type of confluent small-pox which I have already referred to and partially described which seems to occupy a place intermediate between the ordinary confluent disease and the hemorrhagic type. It admits of but one prognosis, as uniformly fatal as is that of the latter. There is considerable systemic disturbance at the onset, but in this it does not materially differ from its nearest congeners. The most striking features are those of the eruption. This comes out at first small, close-set, rather livid, the papules sometimes susceptible of being separately distinguished, but sometimes not; these are less prominent than in the more favorable type, but perhaps most noteworthy in their greater tendency to vesiculation. On the face this is apparent by the third day, the vesicles rapidly increasing in breadth, but not in height. Soon the face takes on an appearance which it is impossible exactly to convey in language, but which is, nevertheless, strikingly characteristic. The vesicles, having become pustules, contain a milky and quite opaque fluid which, however, does not distend them. To the eye and finger they are flabby and yielding. Their shape is flat and depressed, especially near the margin of the scalp; around the mouth and *ala nasi* they are somewhat more acuminate.

The intermediate portions of sound skin, if any—a partially free strip is often to be found along the margin of the scalp—are pale, depressed and clammy. The face, which may have been much swollen, is now but slightly so, although it may be but the sixth or seventh day. This swelling comes on and goes off sooner in these cases.

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The peculiar color of the whole face may be distinguished at a considerable distance, it is pasty, more white than yellow, and devoid of sheen or lustre.

On the body and more especially on the extremities the appearance is often different. Here the vesiculation, although beginning later, has outstripped that on the visage, owing to these parts being covered and perspiring more profusely, Here we find large vesicles, filled perhaps as late as the eighth day with limpid serum. They are thickly set, many of them ruptured, and with them we find, at times, bullæ of varying size, also full, but evidently not owning the same origin, being apparently the result of the perspiration, which is, I believe, always excessive in these cases. When the arms have remained uncovered, their appearance is much like that of the face.

A close examination will probably reveal on a leg or arm one or more vesicles tinged with blood, the peculiar disposition of which demands a passing notice.

If a papule in one of these cases be examined at about its third day, it will often be found to be wide and flat, and the central depression—hardly, here, umbilication—correspondingly so, much resembling the vaccine vesicle. When vesiculation begins, it seems to be from the centre of the depression, so that soon there is formed one vesicle within another, separated by a ring adherent to the underlying cutis. It would seem that the blood is effused into the inner vesicle. Of course I do not pretend that this can always be made out, but I have seen it sufficiently often to confirm the belief that this is the ordinary course of events.

The throat symptoms in these cases are always intensified. Delirium of a violent kind is an almost constant accompaniment. I do not insist on this as a separate type, as it may verge into ordinary confluent on the one hand and hemorrhagic on the other by insensible gradations.

The descriptions given by Trousseau of confluent small-pox is for the most part a striking picture of the type of which I have just spoken; what confirms my belief that it is of this type that he speaks is his remark that it is "almost always fatal." This I would endorse, striking out the word "almost."

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Fatal discrete small-pox is rare in the adult. Sydenham and Trousseau say that these cases terminate on the eighth day. In the only case coming under my observation death occurred on that day, the immediate cause being cerebral congestion, as in the patient mentioned by Trousseau.

The formation of sudamina, which bodes evil in most diseases, seems to be without any special meaning here; nor is it rare.

The symptom next in importance after the eruption is the fever. This naturally runs high in confluent. During the period of invasion it is pretty uniformly at 104°. Some authors say that in these cases there is not the remission after eruption found in discrete. Here I would differ. To be sure it does not go down immediately, but begins its descent on the second and usually has reached its lowest point by the third or fourth day of eruption; that is to say, in about one case in four, as low as 99°, in about half, 100°, and in the rest, from this up to 103° or higher. During maturation, and in some cases for many days after, it reaches figures varying with the severity of the case, often as high as 106°. Such a temperature is generally fatal. On several occasions 108° to 110° was registered in moribund patients.

In hemorrhagic cases, the fever by the second day of eruption usually falls to 100° or 101°. Indeed, while some of these cases show a high temperature, some run their course to a fatal issue with but little fever.

The fever in uncomplicated discrete and modified cases is in direct relation to the quantity of the eruption, and hence varies greatly.

The delirium of small-pox is of a peculiar character. Sometimes the patient remains in bed and rehearses the language he was wont to use in health. The teamster clucks to his horses, the tradesman bargains, the lover woos his maiden, the saint prays and the sinner swears. But often it resembles an acute mania much like that of delirium tremens. Indeed the resemblance to the latter is striking. The constant desire to escape, the presence of phantasms, the suspicion and fearfulness, insomnia and alertness and even the tremor, are there. Delirium of some sort is rarely absent in confluent cases, and when violent is of

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the gravest import. It comes on early, often preceding the eruption, and returns to accompany the secondary fever.

As to the condition of the bowels, it may be said that while constipation is the rule in adults, diarrhœa is very frequently present in children.

The secretion of sweat is always very abundant, that is, while the eruption is progressing. In some cases, and these are, I think, fatal, the patient may be quite dry while the secondary fever is at its height.

The odor of small-pox, which I may here mention, is characteristic in the extreme. It has been compared to that of burning grease. There is an odor about the breath which is different from this, and which I have noticed as early as the period of invasion. It can hardly be described, but when known is an aid in diagnosis. There is also a peculiar smell, different from either of these, which is found only about hemorrhagic cases.

Salivation is another very constant accompaniment of small-pox. I believe that as a general rule it increases in the same ratio as the severity of the case.

Throat symptoms are always present, and, as a rule, most severe in hemorrhagic cases. The palate, fauces, etc, may be seen studded with small ulcers—perhaps broken pustules. The larynx and upper part of the trachea are also involved in the worst cases.

Among symptoms not so constantly present may be mentioned swelling of the joints due apparently to periarticular effusion. This is very painful but is generally soon re-absorbed.

The eye complications observed were, ulcers on the conjunctiva, phlyctenules on the cornea, and a peculiar affection to be described. The two former left no serious results. The latter, which is well described by Marson, appeared first as a little yellow opacity at the limbus, which soon became an ulcer which deepened and spread around the corneal border, and at the same time toward the centre. It never failed of destroying the entire cornea.

Otitis media purulenta was rather a rare complication. I have spoken of it at greater length in the ST. LOUIS COURIER OF MEDICINE for August, 1882.

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Pneumonia, bronchitis and pleuritis were also sometimes present.

Various conditions modified the course and issue of the case. The puerperal condition, whenever present, determined a fatal issue, the patient generally flooding to death. Pregnancy was not necessarily a fatal circumstance. Syphilitics seemed also to have severe cases. The determination of blood to the surface in several instances provoked a fresh syphiloderm, so that one could see two poxes blend as one. Race, again seemed to be a powerful factor. Other things being equal, it took a more severe case to kill a white than would suffice to kill a negro. This seemed to be largely due to their lack of physical and moral stamina. As a rule they made no stand against the disease, but awaited death with that resignation which is common among inferior races. They are also known to be more susceptible to the infection than whites. Thus, quoting from the reports of the institution, there died:

From April,	1881	to April,	1882,	Whites,	64;	Colored,	37
"	1882	"	1883,	"	21;	"	13
"	1883	"	1884,	"	123;	"	45
Total - - - - - - -					208		95

The higher rate of mortality among negroes is shown in the following. Thus, during the three years from April 1881 to April 1884 there were admmitted 644 white and 231 negro patients. There died 208 whites, about 32⅓ per cent. and 95 negroes, or a little over 44 per cent. "A very excessive proportion when compared to the relative numbers of the white and colored resident population. * * *

Without seeking to account for the disproportion, we will merely call your attention to the fact that it is among the colored population that we most frequently get the answer, never vaccinated; or register against their names 'no scar.' At the same time their peculiarities of circumstances and surroundings, habits of life etc., should be borne in mind." Whether the type of disease can be affected by its early treatment, or by the conditions under which the patient was placed, was answered again and again in the affirmative. Where there had been subjection to the in-

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fluences of chilling fall rains, draughts, or other inclemencies of the weather, or where the patient had by the advice of friends or following his own ideas made use of cold baths, the case would often assume a low confluent or hemorrhagic type.

The most important modifying factor is vaccination. This will be referred to later on.

Among the sequelæ and accidents of convalescence were erysipelas, sub-tegumentary abscesses, (not boils) often in great numbers and of large size, several cases having had a hundred or more of them, large and small, in some fatal instances the subcutaneous cellular tissue was destroyed over large tracts the skin resting on a bed of pus) parotiditis, swellings of lymphatic glands and catarrhs of the respiratory and alimentary tracts. An obstinate pustular acne was very frequent about the nose.

As to mortality, the reports of the institution from April 1881 to April 1884 show:

	Hemorrhagic.	Confluent.	Discrete.	Varicelloid.	Total.
Admitted - -	112	313	224	208	857
Died - - -	103	170	29	1	303

This includes 285 patients not coming under my own observation. The death rate would be little higher than these figures show, by reason of some of those dying who are carried over to the next report. To state it roughly, of hemorrhagic cases there die 100 per cent. of confluent, something over 50 per cent.; of discrete about 13 per cent.; of varicelloid, less than ½ per cent.; and of all cases 35½ per cent.

There occurred two cases in which the disease was repeated throughout immediately after the termination of the first set of symptoms. These were as follows.

Peter Delbridge (colored), æt 34. Vaccinated successfully at age of 19. Taken sick December 19, 1881. Admitted on the 21st, with varicelloid. Did well and towards the last days of the month the few scabs formed had fallen off, leaving slightly depressed scars.

On December 30, patient who had been allowed to sit up, was taken with a slight chill followed by high fever and violent pains in head and back. January 1, P. M. A new eruption as characteristic as the first appeared. In both crops vesicles

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were umbilicated, and in every other respect true variolous papules, vesicles and pustules.

January 2, 9 A. M. Temperature 102°. 8 P. M. Epistaxis. Recovery was slow, discharged February 13.

John Henry (colored), æt, 10. Vaccinated about November 10, 1881, successfully. Admitted December 10. Diagnosis varicelloid. Discharged December 19. Was taken sick on the 20th with headache and backache, eruption appearing on the 24th and the patient being readmitted on the same day. Diagnosis—Variola confluens. I will not recite the history of the case, but merely say that from the first the fever was about 103.5°, where it obstinately remained. Throat and cerebral symptoms were severe and the patient died January 1.

In a third case of varicelloid occurring in a white boy, patient had a fresh outbreak after being returned to his home.

Heberden says he has heard of a second crop of pustules, but has never seen it.

There were several cases among persons already having had the disease. "One was that of a colored female, whose previous attack, occurring five years before, had cost her an eye, this the second attack being much the more severe of the two. She had never been vaccinated, thinking herself secure. The most remarkable case was in the person of one of our male nurses, who having had a very severe case in 1848, marking him for life, and the sequelæ resulting in atrophy of one limb, contracted a milder case in 1872, and in '82, soon after re-exposing himself to the infection, for the third time proved his susceptibility to it by going through a mild form of varicelloid."

The treatment, of course, varied greatly according to the exigencies of the case. In those described as favorable, ordinary precautions with scant medication will suffice. In those of an opposite character the most energetic measures are necessary and will often be in vain. Seeing then that in the vast majority of cases this disease announces in clear and unmistakable terms what its future course will be, we should be ready to profit by the information. Forewarned should be forearmed. But what is the physician to do? Shall he be content to meet the symptoms as they come up, "obviating the tendency to death," or can

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he do anything to alter the courses of the disease? This question often suggested itself. Patients with ill formed pustules did not get well; if the character of the pustule could be changed, might there not be a corresponding change in the other symptoms. The only way to effect this seemed to be through the vascular supply to the skin. Sydenham, indeed, had long ago exposed the folly of encouraging the eruption, with the idea, as the older physicians taught, of aiding nature in throwing off the "peccant humor." Our idea, however, was not numerically to increase the eruption, but if possible, only to favor the development of each individual pustule. By the end of the third day of eruption, the full number of papules have shown themselves; if they are at that time of unfavorable aspect can it do any harm to attempt to improve them? With this in view we first began using the fluid extract of jaborandi. This had the desired effect, but caused so much gastric and enteric disturbance that it was abandoned for the hypodermatic use of the hydrochlorate of its alkaloid, pilocarpine, in doses of ¼ grain to the adult. If the looked for effect was to be produced at all it would be accomplished by one, or at the most two doses. In many instances its use brought about a marked change for the better within twelve hours, and I believe that lives were saved by this means. Its most disagreeable effect was to increase salivation, but this was of no special moment except in hemorrhagic cases, where it is already so excessive. In these latter the pilocarpine did no good and perhaps some harm. Its use here was soon abandoned. But in a certain number of cases in which the character of the rash was forbidding, I believe it to have been a valuable aid. Its depressing effect has to be guarded against, but this I found less marked than I had been led to believe. The pulse rises within two minutes after injecting the drug, and increased perspiration and salivation, with perhaps nausea, appear about three minutes later, the perspiration continues about four hours, and the effect on the eruption is seen, if at all, within twelve hours.

With the beginning of maturation, antipyretics are indicated. Quinine is of little use. The salicylate of soda is somewhat better. The sulpho-carbolate and hypo-sulphite of soda are I

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think the best remedies at our command, although even their effect on the fever is but slight. The use of the latter is attended with great danger on account of its tendency to produce diarrhea. Even when combined with opium it was found that it could not be given in larger doses than ten grains every four hours. Norwood's tincture of veratrum viride was given in a few instances with benefit.

Of course the most powerful antipyretics are the cold pack and bath. These means were in many cases pushed with the utmost vigor. How grateful they are to the patient, every practitioner who has made use of them to control fever knows. That the temperature in most cases does not regain its former level for four hours, is to me a sufficient argument in their favor. The sufferer falls into a quiet sleep and for a time forgets his misery and gives nature a chance to rally her scattered forces, I must confess that in the great majority of cases, the fatal issue was only deferred, the tendency to death only temporarily obviated. This however does not shake my faith in the value of the resource. Because a conflagration has gained headway and will almost certainly burn the house to its foundations, should we therefore neglect to call out the fire-department?

The delirium calls for the unstinted use of bromides and chloral, and often necessitates the use of straps and other appliances for confining the patient.

We have often been asked what means were used to prevent pitting. Many applications were tried, but none were found to be of much virtue. A mixture of equal parts of glycerine and water relieves in part the heat and tension, and later softens the scabs. It is as good as anything else. The pitting depends on the depth of the inflammation, and consequently whatever tends to lessen the latter will diminish the former. Most will be accomplished by restraining the patient from scratching and tearing himself.

Vaccination as a therapeutic aid was resorted to in several instances, always with an entirely negative result. Certainly on theoretical grounds nothing should be expected from this procedure, as it is well known that when small-pox declares itself before the eighth day of vaccination the development of the vesicle is arrested.

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As to the effects of vaccination both as a prophylactic and as favorably modifying the course of the disease when it does not confer immunity, I will merely say that what conclusions could be drawn from the limited number of cases on hand were all overwhelmingly in its favor.

Table of 288 cases in which record of scars was kept. (From April 1, '82 to July 31, '83).

Having one scar,	- 63 cases and	- 13 deaths	
" two scars	- 16 "	- 4 "	
" three "	- 6 "	- 0 "	
" four or more scars	14 "	- 1 "	
Having good scar or scars,	- 50 cases and	- 7 deaths.	
" faint "	- 49 "	- 11 "	
" no "	- 189 "	- 87 "	

The lesson herein contained should be sufficiently plain to all vaccinators. Do your work thoroughly. The physician should never be satisfied with less than four ample scars, and these should all be the result of a first vaccination. If it is worth your while to take Achilles to the Styx, he should be doused clean under. It is certain that many deaths are yearly traceable to ignorant, clumsy, insufficient vaccinations.

Of 636 cases occurring from April, '81, to July, '83, inclusive, in 119 the vaccination history was not obtained, leaving 517 as basis for our calculations. Of these 283 were never vaccinated. This is certainly a much higher ratio than that of all unvaccinated persons in the city to the entire population. Now to those never vaccinated, let us add those in whom the operation was performed so long ago as to have made re-vaccination necessary;

517—283=234 vaccinated. Of these then,

122 had not been vaccinated	within	- -	15 years
23 "	"	- -	10 "
26 "	"	- .	5 "

leaving therefore only 68 out of 517, about 12 per cent., vaccinated within five years. In a certain proportion of this 12 per cent. the operation had been imperfectly or insufficiently performed.

Excluding again "no history" cases, we start off with 517 and a mortality of 195. Latter was distributed as follows:

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			Per cent.
Never vaccinated, - - cases	283, deaths	144,	50
Vaccinated over 15 years ago "	122, "	29,	23⅔
" " 10 " "	23, "	6,	26
" " 5 " "	26, "	5,	19
" within 5 years "	63, "	11,	17½

Here we have an almost uninterruptedly descending scale of percentages; 50, 23⅔, 26, 19, 17½. Could anything be more convincing? And yet there are some doctors who do not believe in vaccination. What shall we say of these our brethren? "They are like the deaf adder that stoppeth her ear, which will not hearken to the voice of charmers, charming never so wisely."

THE INDEX MEDICUS.—We are heartily glad to insert the following note from the editors of this most valuable journal.—[EDS. COURIER.

We take pleasure in announcing that Mr. George S. Davis, of Detroit, has undertaken to continue the publication of the *Index Medicus*, on the same general plan, and with the same regard to typographical accuracy and finish, as heretofore.

On account of the delay required to perfect this arrangement, the first number of the journal for the current year will comprise the literature of January, February and March, after which it will appear monthly, as usual.

At the end of the year, in addition to the usual annual index of names, subscribers will be furnished with an index of subjects to the volume.

So many expressions of regret and urgent remonstrances in regard to the threatened discontinuance of the *Index Medicus* have been received, that we think we may venture to congratulate the profession on Mr. Davis' public-spirited determination to carry on the enterprise in spite of the fact that thus far it has not been pecuniarily remunerative.

It is requested that all exchanges, and books and pamphlets for notice, be sent to the *Index Medicus*, Washington, D. C.

JOHN S. BILLINGS, M. D.
ROBERT FLETCHER, M. D.

WASHINGTON, D. C., March 4, 1885.

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CASES FROM PRACTICE.

TOXIC PROPERTIES OF OIL OF TANSY.

BY W. W. BAILEY, M. D., FORT SMITH, ARK.

On the evening of January 16, 1884, I was hastily summoned to see D., an unmarried young miss, whom I found in violent toxic spasms, foaming at the mouth, comatose, with dilated pupils, feeble and frequent pulse.

When entering the room I detected a strong odor of tansy, and soon learned, upon inquiry, from the alarmed and anxious mother, that the daughter had been in the habit of using tansy tea, made from the herb, at nearly every menstrual period, for difficult and painful menstruation. Sending to the drug store on this occasion, as was her custom, for the herb, the messenger was informed that they had not the herb, but had the oil, leading the messenger to infer that it would do as well. Accordingly one-half ounce of the oil was procured, and about two drams and a half of this was poured into half of an ordinary tin-cupful of water. This; with the exception of a small portion of the water, containing about a half dram of the oil, was taken at one dose, and in the presence and with the consent of the mother, little dreaming of its dangerous properties as an irritant narcotic.

The young lady at once retired to her room and bed, the mother being in an adjoining room, with the door ajar. Soon a strange sound from the daughter's room startled the mother, and upon going to her assistance she found her daughter in a violent convulsion, with features horribly distorted, and I was sent for in haste. The patient being entirely unconscious and unable to swallow, it was impossible to administer any antidote then by the mouth. I at once resorted to pressure and massage over the epigastric region. Whether from the effects of kneading or the irritating nature of the oil, or both combined, I soon had the satisfaction of feeling a revulsive movement of the stomach, which increased in vigor until a part of its contents was expelled. Partial consciousness returned; then I administered ipecac, mustard, and large draughts of hot water.

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Soon the stomach was again emptied, and this time pretty thoroughly. Soon afterwards I gave two drams of Husband's magnesia that I happened to find in the room, and to relieve the intense pain in the head, which my patient then complained of, I administered a full dose of acetate of morphia.

The patient was now restored to full consciousness, and realized the danger she had passed through. No unfavorable symptoms followed, and without additional medication, after thirty-six hours of rest and quietude in bed, she was again able to pursue her usual avocations. We see how thoughtlessly and recklessly this young life was placed in jeopardy, and how little is known of the toxic effects of this oil. Is it not enough to make one shudder to think what slight restrictions are placed upon the sale of any drug or chemical in the United States, and particularly so in our state? How often are the lives of those most dear and near to us placed in the hands of incompetent druggists or drug clerks? and how many do we find of this class, throughout the length and breadth of our state, dispensing the most powerful and dangerous medicines, with the nonchalance of a dry-goods clerk measuring tape to his customer, or a peanut man chucking a nickel's worth of peanuts into the small boy's pockets? Let us of the medical profession arise from our lethargy, and proclaim from the housetops, and from the street corners, through the press, and by every other available means, the necessity of enacting and enforcing rigid laws, by which the compounding or sale of any drug or chemical shall be placed only in the hands of the competent and skilful. Every day the press of the country chronicles the death of some one by the hands of the druggist. Only a mistake!—this is the verdict—and the ripple in the stream soon fades away, and another victim takes his place in the tide of events, and awaits his doom with complacency.

The truth of the matter is, the physician frequently does not know how often his patient's aggravated symptoms are attributable to the careless and incompetent druggist, and it behooves us to do all in our power to put on foot a reformation, and to this end let us all give our support.

The United States Dispensatory, in discussing the poisonous effects of the oil, reports a number of fatal cases from one dose of the oil. Taylor's Medical Jurisprudence, under the head of "Oil of Tansy," reports through Dr. Hartshorn several cases of death from an overdose, and says it has acquired the character of a popular *abortive.*

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EDITORIAL.

DEBOVE'S TREATMENT OF GASTRIC ULCER.

Dr. Henry B. Millard in the *N. Y. Medical Record*, Jan. 31, calls attention to the new method of treatment of gastric ulcer suggested and practised by M. Debove.

His idea is to spare the stomach the necessity of excessive muscular action, giving rest to the ulcer; to modify the acidity of the gastric juice which is really a caustic irritant to the ulcer, to use food which does not require peptonization in the stomach but can be wholly digested in the small intestines.

Having found the milk diet as usually ordered to be sometimes disadvantageous by distending the stomach and causing hemorrhage, and to be generally inefficacious, he made a trial of nutritive powders, condensed milk, etc., and found them more satisfactory.

He then conceived the idea of relieving the stomach entirely of the chemical part of digestion by neutralizing the acid of the gastric juice with bicarbonate of soda administered with the nutritive powders of beef and milk.

He showed that the gastric juice does not act upon such alkaline ingesta, but that they pass on unaltered into the duodenum, where the pancreatic juice peptonizes them.

Practical results have demonstrated the correctness of his theorizing, and some very remarkable cures evidence the therapeutic skill of M. Debove.

He first washes out the stomach with simple water to free it from acid. On account of the danger of hemorrhage this operation should be performed by the physician himself or under his

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immediate oversight, and should be stopped at once in case the water is tinged with fresh blood, but otherwise is continued until it returns quite clear. M. Debove employs for this purpose a modification of Faucher's tube. After washing out the stomach he administers twenty-five grammes (6 drams) of the *poudre de viande* with ten grammes (2½ drams) of bicarbonate of soda mixed with milk to the consistence of cream. If this proves so disagreeable that the patient cannot take it otherwise, he administers it by the tube. As the quantities of bicarbonate of soda ordered sometimes cause inconvenience by irritating the stomach, causing painful eructations, etc., he then gives smaller doses of the alkali.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES ARMY, 1884.

Some of the items from this report are of considerable general interest. We note that there were furnished during the year:

In kind:		Commuted.
Trusses, - - - - - -	615	
Artificial legs, - - - - -	34	151
Artificial feet, - - - - -	2	19
Apparatus for leg, - - - -	1	1,354
Artificial arms, - - - - -	4	354
Apparatus for arms, - - - -	1	1,767

As to the health of the army the number of cases among the white troops admitted to treatment was at the rate of 1,833 per 1,000 of mean strength, an increase of 31 per 1,000 over the number reported for the preceding year. This increase was almost entirely due to admissions for sickness.

The mortality for the year was 250, or 12 per 1,000 of mean strength, an increase of 2 per 1,000 over the rate for last year, this increase also occurring among the cases of disease only.

Among the colored troops the number of cases admitted to treatment was at the rate of 1,887 per 1,000 of mean strength, a de-

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crease of 75 per 1,000 from the rate reported for the previous year. The mortality for the year was 22, or 10 per 1,000 of mean strength, 1 per 1,000 lower than that of the last year.

"It is interesting to note that not only is this the lowest death-rate yet reached among colored troops since their organization, but it is the first time that the rate has fallen lower than that for white troops, the usual average difference being 3.2 per 1,000 of mean strength in favor of the latter class."

Malarial diseases are found generally to affect the white more seriously than the colored troops. Syphilis and other venereal diseases prevail more among the colored than the white troops, while the former are comparatively free from the diseases caused by intemperance.

The number of specimens added to the museum collection during the year was 566. The additions to the library included 4,000 volumes and 5,500 pamphlets, and at the end of the fiscal year the library contained by actual count 65,738 volumes and 86,503 pamphlets.

Not only the intrinsic value of the library is thus increasing, but it is constantly becoming better appreciated and more use is made of it year by year by the physicians in different parts of the country.

DEPOPULATION OF FRANCE.

A very animated and interested discussion has occupied the attention of the French Academy of Medicine during several recent meetings with regard to a state of facts brought out by the last census, from which it seems that the population of France is diminishing.

Various members have advanced theories to account for the facts claimed, and have attempted to explain them. At the meeting of February 10, M. Hardy took the floor to enter upon the discussion. According to him the cause of this diminution in the population

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was not to be found in any of the influences which had been discussed, but lay deeper, in weakening of the prolific power of the race. He claims that the capacity to have children diminishes in proportion with the advancement in civilization of the race. It is in this respect with nations as with individuals. As we see the procreation of infants diminish in proportion as we ascend in the social scale, so in the same manner do the nations which ascend to the first rank in the order of civilization descend to the lowest in the order of increase of population.

Admitting that recent statistics show that the fecundity of the French has diminished in proportion to that of other European nations, he claims it is easy to show that in France fecundity decreases as one ascends in social rank.

As a striking example, M. Hardy instances a corporation composed of thirty-four persons, of whom five are bachelors. Nine of the rest, one third, have childless households. The rest have on the average one or two children.

Among the causes, which to a certain degree, can fill the apparent lacks in their population, M. Hardy counts upon the increasing immigration of Jews who come to France attracted by the equality of rights and the complete security French customs and political institutions offer. He characterizes them as intelligent, laborious, ambitious and, moreover, very prolific. The last fact makes them specially valuable to the French in the present state of affairs there. But, says M. Hardy, the principal remedy to the evil of the diminution of population, since it is scarcely possible to augment the birth-rate, is to teach how to diminish the mortality. The mortality of new-born children is terrible among the lower classes of society, especially the infants of work people, illegitimate and abandoned infants. Among the better classes, on the contrary, the infants only exceptionally die during the first year, because they generally have good care, nourishment adapted to their digestive powers; in a word, the observation of the laws of hygiene. In the lower classes, on the contrary, these laws are perpetually trans

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gressed, the bad nutrition, premature alimentation and exposure to the cold destroying a very large number of the children of the people.

In conclusion, according to M. Hardy, it is not so much to have many children that should occupy their thoughts in France, but to preserve as far as possible those that they have.

SANITATION IN JAPAN.

In the January number of the *Dublin Journal of Medical Science* appears a review of the first four annual reports of the Sanitary Bureau of Japan. It is interesting to note that this people, still regarded in the popular mind as at best well-meaning heathen, ten years ago established a Bureau of Medical Affairs. In the state of Missouri we have just succeeded within a year, after a long struggle, in securing a State Board of Health; and this, even before it had had time to get upon its feet, is virtually abolished. The Japanese Bureau has decided that all nostrums and patented stuff of unknown composition should be analyzed and their composition ascertained. We recommend this to our state authorities. The sale of adulterated quinine and iodide of potassium is specially punished. Those desiring to practise medicine must pass examination in the fundamental branches. In some parts of Japan infectious diseases must be reported. Coloring matters use for various purposes are examined, and those found to be injurious to health are prohibited. Vaccination has been introduced with the usual prophylactic results, 56.17 per cent. of the unvaccinated dying as against 24.32 of those protected. Cows are inoculated with vaccine lymph, and with this healthy children under one year of age are periodically selected and vaccinated; the resultant scabs are preserved. Local authorities are supplied from the central bureau. Typhoid, dysentery, small-pox,

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diphtheria are prevalent diseases, with occasional epidemics of cholera. No reference in the reports is made to the existence of the measles, scarlet fever, or whooping cough; but a virulent disease called *kakke*, is endemic in the autumn: it would seem to be of malarial nature. In the district of the capital, where registration of deaths is fairly carried out, the rate for 1878 was 25.78 per 1,000. The whole population of Japan is estimated to be 33,358,-799.

CASE OF CAUDAL DEVELOPMENT IN A HUMAN BEING.

Dr. Lissner, in the last number of *Virchow's Archives*, describes a case of complete development of a tail in the human being. The doctor delivered a multipara of a female child, which exhibited a perfect tail. Both parents were of normal frame and their other children were not deformed. It is stated that the father was given to liquor, but it does not appear that this indulgence might have effected the reversion in type suggested by the tail. The tail was an undoubted continuation of the spine; through the more delicate integument on the anal side, several bones like the digital phalanges could be felt. A cyst was attached which was somewhat hairy; this was punctured, letting escape a serous liquid. The parents would not allow an amputation. The child is now over thirteen years old. It was lately brought before the doctor for re-examination. The child by law should attend the public school, but had obstinately refused; among other reasons because, as she declared, the sitting position caused pain. The tail at present measures in length 12.5 cm., and 23 cm. in circumference. Hard, irregular bodies, bones probably, can be felt through the skin.

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"LAVAGE."

In a clinical lecture by Dr. Dujardin Beaumetz, published in the December *Therapeutic Gazette*, there is an excellent presentation of the best modes and results of this means of treating gastric diseases.

Without any reference to the history of the treatment, to which, he devotes a few paragraphs we note his preference for Debove's modification of the stomach tube in which the part introduced into the stomach is made somewhat stiffer than the rest in order to facilitate its introduction. He recommends the administration of full doses of bromide of potassium for two or three days before commencing the use of the siphon, in order to obtund the sensibility of the fauces and diminish the tendency to reflex action caused by the contact of the tube.

The tube having been introduced, the funnel is filled with the liquid designed for the lavage, and is then elevated, thus allowing the liquid to flow into the stomach. As the last of the liquid begins to disappear from the funnel this is immediately lowered and the siphon action removes the liquid from the stomach.

A number of different liquids have been recommended and used with benefit by this method. In the majority of cases a simple alkaline solution, one dram of bi-carbonate of soda to the quart of of water has been used. Prof. Dujardin-Beaumetz states that the Germans seem to prefer a solution of one dram or a dram and a half of sulphate of soda to a quart of water, which is of advantage specially in cases where obstinate constipation complicates the gastric trouble.

When the contents of the stomach give evidence of having undergone putrid fermentation some of the various antiseptic solutions may be used with advantage. Andeer has recommended a one per cent. solution of resorcine. Our lecturer notes the disadvantage that may result from absorption of this remedy, if the solution be not all removed from the stomach, and expresses a

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preference for a solution of boracic acid of the same strength which he finds efficient as a disinfectant of the contents of the stomach, and its absorption is harmless. In these cases of putrid dyspepsia he recommends also charcoal powder, of which two to four tablespoonfuls may be added to the water used for the "lavage"

When there is digested blood in the contents of the stomach returned by the siphon, he suggests the addition of a half ounce of the officinal liquor ferri perchloridi to a quart of water as a "lavage."

When severe gastric pain is present he recommends solutions of bismuth, chloroform water or carbon disulphide water. The "milk of bismuth," consisting of two tablespoonfuls of subnitrate of bismuth in a pint of water, is introduced through the flexible tube, but is not immediately withdrawn. Several minutes are permitted to lapse in order that the bismuth may deposit itself upon the mucous membrane of the stomach.

Chloroform water, which he says we owe to Regnault and Laségue, is prepared by agitating chloroform with water, and decanting the water. This solution is called "saturated chloroform water" and for medicinal use is to be diluted with an equal quantity of water. The dose of the diluted preparation is a tablespoonful three times a day, either alone or with such other medicament, as diffusible stimulants or narcotics, as the condition may demand. For use in "lavage" of the stomach, two teaspoonfuls of the saturated chloroform water to the quart of liquid.

While the chloroform water is calmative and antiseptic, he finds carbon disulphide water decidedly more so. This is prepared in a manner similar to the chloroform water, by agitation and decantation. This water has a slight odor of fermented cabbage and contains a little more than one gramme (15 grains) of the carbon disulphide to a quart of water. It is given diluted with an equal quantity of water or water and wine. This mixture has no unpleasant taste and may be given in doses of four to six tablespoonfuls at a time. It soothes pain and arrests putrid fermentation.

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The chill should be taken from the water when a considerable quantity is to be used. As to the quantity to be used, he says that no fixed rule can be laid down, but when practicable the lavage should be continued until the water returns as clear as it enters or nearly so. The professor favors the hour of rising in the morning, though he observes that Leube favors an hour late in the afternoon. Once a day is almost always sufficient. Very rarely is it advisable to use it twice a day. Too frequent lavations fatigue the patient, interfere with peptonization of the food, and sometimes the lavage may become the cause of contractures.

The formal indication for this plan of treatment is found whenever there is dilatation of the stomach, whatever be the cause of it. In cases of round ulcer of the stomach, where there is danger of profuse hemorrhage, lavage is not to be practised. It is indicated, however, in the simple erosions of the mucous membrane which are so common in the gastritis of drunkards.

MIND IN NATURE is a new monthly journal published in Chicago by the Cosmic Publishing Co. The object of Mind in Nature is to furnish, in a popular manner, information regarding psychical questions, the relations of mind to the body with special reference to their medical bearings on disease and health, and to give the most striking and interesting facts and discoveries of science. It will give a full résumé of all the investigations and reports of the English and American Societies for Psychical Research, and of the branch societies to be formed in different portions of our country. One of its chief aims will be to gather from original and trustworthy sources valuable information on the various subjects grouped under "Telepathy, or the influence of mind upon mind, apart from ordinary perception," which will be of important service to the investigators of psychical phenomena.

GAILLARD'S MEDICAL JOURNAL The new editor of this journal is Dr. P. B. Porter, whose literary and scientific acquirements and experience already had in medical journalism will make him an able successor of Dr. Gaillard.

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BOOK REVIEWS AND NOTICES.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION. Eighth Annual Meeting held at Highland Falls, near West Point, New York, on August 27, 28, and 29, 1884. New York. 1884. 8vo.; pp. 26.

The papers read at the meeting of the Dermatological Association have been published elsewhere in various medical journals. In this "Official Report of the Secretary" only brief abstracts of the papers are given with the discussions, the report of the Committee on Statistics and a list of the contributions to the department of dermatology published by members of the Association during the year ending September 1, 1884.

EXPERIMENTAL RESEARCHES ON CICATRIZATION IN BLOOD VESSELS AFTER LIGATURE. BY N. SENN, M. D. [Extracted from the Transactions of the American Surgical Association, Vol. II, 1884.] *Philadelphia: Collins, Printer.* 1885. 8vo.; pp. 117, paper.

This is a thorough and exhaustive study of the subject, giving first its history, then the histology of the blood vessels, the various modes of ligature, the changes which take place after the application of the ligature in the vessel and in the thrombus, the process of cicatrization. Then follows an account of some fifty-four experiments which Dr. Senn himself has made. He summarizes the results of his study and experiments in some practical suggestions which we have cited elsewhere.

THE PHYSICIAN'S POCKET DAY-BOOK. Designed by C. HENRI LEONARD, M. A., M. D. Price $1.00. *Detroit, Mich.: Illustrated Medical Journal Co.*

This call-book has a convenient arrangement of blanks for keeping a record of a physician's daily practice, obstetrical record for ninety-six cases and memoranda for cash account. It is simply a record-book of work done and charges made and makes no pretence of furnishing hints for reference at the bed-side. It is of convenient size for the pocket and is neatly and serviceably bound.

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A MANUAL OF THE MEDICAL BOTANY OF NORTH AMERICA. By LAURENCE JOHNSON, A. M., M. D., etc. *New York: William Wood & Co.* 1884. (Wood's Library). (St. Louis Stationery and Book Co.)

No work especially on the botany of medical plants had been published before that of the present author; and he has well succeeded in preparing a volume which will be welcome to teacher and student.

Little attention is given to the physiological actions or therapeutic indications, the work being strictly botanical. The illustrations are excellent. We would suggest that tissue paper slips be inserted to protect the colored plates from marring by the adhesion of the printed page.

QUIZ-COMPENDS.—SURGERY. By DR. ORVILLE HORWITZ, B. S., M. D. Second Edition, Revised and Enlarged. With Sixty-two Illustrations. *Philadelphia: P. Blakiston, Son & Co.* 1885. Small 8vo.; pp. 156; cloth $1.00.

The quiz-compends have been well-received. For the purposes of the quiz-class and to prepare for examination they contain condensed outlines that enable one to review rapidly the work done in attending lectures or in study of more exhaustive treatises. This little quiz on surgery has been carefully prepared and is a fair specimen of such volumes.

A PHARMACOPEIA FOR THE TREATMENT OF DISEASES OF THE LARYNX, PHARYNX AND NASAL PASSAGES. By GEORGE MOREWOOD LEFFERTS, A. M., M. D., etc. Second Edition, revised and enlarged. *New York and London: G. P. Putnam's Sons.* 1884. 12mo.; square; cloth; $1.00.

This little volume is a handy-book for study by the student attending special lectures and a reference book for the practitioner. Dr. Lefferts prepared the book for the use of his students first; but others will find it convenient and serviceable.

ELEMENTS OF SURGICAL DIAGNOSIS. By A. PEARCE GOULD, M. S., M. B., Lond., etc. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 16mo.; pp. 584; cloth.

From a cursory examination of this book, the author seems to have very well carried out the object in view in its preparation. This is one of a series of "Manuals for Students" that are in the course of publication by Henry C. Lea's Son & Co., in this country, and Cassell & Co., in England. Whether for the use of

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students the separation of instruction as to the diagnosis of surgical diseases and injuries from that concerning their treatment is advantangeous in certainly a question that many would answer negatively. If one feels the need of a handy book of reference apart from a systematic treatise on surgery this little volume is a very good one.

MODERN MEDICAL THERAPEUTICS; A Compendium of Recent Formulæ and Specific Therapeutical Directions. BY GEO. H. NAPHEYS, A. M., M. D., etc. Edited by JOSEPH F. EDWARDS, M. D., and D. G. BRINTON, M. D. Eighth Edition, Enlarged and Revised. *Philadelphia: D. G. Brinton.* 1885. 8vo.; pp. 629; cloth. (St. Louis Stationery and Book Company; J. H. Chambers & Co.)

The volumes on the therapeutics of modern times originally prepared by Dr. Napheys have met a large sale all through this country. They give the method of different professors and practitioners in different parts of the country as to the choice of remedies and the mode of using them in different diseases. The present volume has been carefully revised and edited by Drs. Brinton and Edwards, whose work as editors of the *Medical and Surgical Reporter* have given them unusual facilities for such revision. They have also corresponded with a large number of physicians throughout the country and have incorporated the results in this. It is a very serviceable volume.

PYURIA; OR PUS IN THE URINE, AND ITS TREATMENT. BY DR. ROBERT ULTZMANN. Translated by permission by DR. WALTER B. PLATT. *New York: D. Appleton & Co.* 1884. 12mo.; pp. 98; cloth. (St. Louis Stationery and Book Co.; J. H. Chambers & Co.)

The monograph of Prof. Ultzmann on Pyuria is a work of genuine value; inasmuch as he clearly details *all* the aids by which we may determine the exact source of pus appearing in the urine.

With this little book at hand we should find little trouble in making a satisfactory diagnosis of these often unsatisfactory conditions. The therapeutics recommended for the various pyuric conditions are most admirable, and leaves no room to wonder at the brilliant results obtained by the author. His remarks upon the pathology and treatment of gonorrhea—we would commend to all practitioners, especially the young who leave the colleges imbued with the idea of curing these troublesome cases within a week. He considers abortive treatment so far unsatisfactory and will continue so, unless it is due to a micro-organism, in which case an abortive may be found among the germicides.

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The dangers of large doses of copaiba, etc., in producing albuminuria are pointed out, and local treatment alone is advised.

In short the work is eminently sound and practical, and would be a valuable addition to any physician's library. W. G. M.

A MANUAL OF ORGANIC MATERIA MEDICA. Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms for the Use of Students, Druggists, Pharmacists and Physicians. BY JOHN M. MAISCH, Phar. D., etc. Third Edition. With two hundred and forty-two illustrations. *Philadelphia: Lea Brothers & Co.* 1885. 12mo; pp. 511; cloth.

Prof. Maisch's work in the field of materia medica is too well known to need that we should call special attention to this volume. That this is from the hand of one of the editors of the National Dispensatory is sufficient guarantee that it is reliable and carefully prepared.

The new features in this edition to which the author calls attention are the list of remedies classified according to their origin and descriptions of a number of the more important drugs indigenous to North America which have not been made officinal.

The book is of more value for pharmacists than for physicians as it deals only to a very limited degree with the therapeutic uses of the drugs.

THE FIELD OF DISEASE. A Book of Preventive Medicine. By Benjamin Ward Richardson, M. D., LL. D. *Philadelphia: Henry C. Lea's Son & Co.* 1884. 8vo.; pp. 737; cloth.

Dr. Richardson is one of the ablest writers as well as one of the most successful practitioners of the profession in Great Britain. He is a prominent leader in the field of preventive medicine. Much that he has written has been specially addressed and specially adapted to the laity. The volume in hand is one of this class. Yet there is much of interest to physicians in the way in which he has presented and grouped the various diseases, their causation and prevention.

The volume consists of three books. In the first he considers general and local diseases affecting mankind; in the second, he discusses diseases of artificial origin; and in the third, he gives "a practical summary of the origin, causes and preventions of disease." This last is by far the most interesting and valuable of the three.

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ONE HUNDRED YEARS OF PUBLISHING. 1785—1885. *Philadelphia: Lea Brothers & Co.* 8vo; pp. 20; cloth.

This is a beautifully executed little sketch of the publishing firm of Lea Brothers & Co., lately Henry C. Lea's Son & Co., tracing the changes in the personnel and policy of the firm during the one hundred years of its prosperous career. The record is one on which the members of the firm can look back with satisfaction and the volume is a beautiful specimen of their best work in paper and typography.

SIXTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. With two Appendices: A.—Conspectus of the Medical Colleges of America. B.—Official Register of Physicians and Midwives in Illinois. *Springfield, Ill: H. W. Rokker, State Printer.* 1884.

It is not often that annual reports of public bodies can be recommended as entertaining reading, however valuable the statistics which they contain may be. In the "Abstract of the Proceedings of the Illinois State Board of Health," there is much that is interesting—some things that are very amusing as illustrating the entire want of education evidenced by some who assume to practise or even to teach medicine.

There is food for reflection for public officers and private practitioners in very many of the facts presented.

There is no other publication in which can be found so much accurate information in regard to the medical colleges of our country as in the Appendix A.

The Appendix B., The Register of Physicians and Midwives of Illinois is also published as a separate volume, bound either in paper or cloth.

This contains not only the name, address, date and place of graduation, etc., of each physician and midwife, but complete indexes, directory of medical societies in the state and a necrological record for the year.

A TEXT-BOOK OF HYGIENE. By GEO. H. ROHE, etc. *Baltimore: Thomas & Evans.* 1885. 8vo.; pp. 324; cloth.

Dr. Rohé has given us in this volume a very good presentation of the established facts and principles of hygiene. The style of his writing is clear and he presents his facts in an interesting dress. He has studied his subject carefully, and a very valuable part of the volume is found in the bibliographical notes at the end of each section.

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Type is large and clear (small pica); but the paper and binding are inferior. The matter of the book is worthy of a better setting.

SOCIAL HISTORY OF THE EIGHTH INTERNATIONAL MEDICAL CONGRESS. BY D. BRYSON DELAVAN, M. D. *New York: D. Appleton & Co.* 1885. 12mo.; pp. 36; paper.

The title sufficiently indicates the scope of this little volume. It is written in a pleasant style and gives a graphic account of the social features of the Congress at Copenhagen where the entertainments were so elegant and brilliant. It forms a choice bit of reading for a few leisure moments.

BOOKS AND PAMPHLETS RECEIVED.

Jewish Hygiene and Diet, etc. By Carl H. VonKlein, A. M., M. D.——Surgery of the Urinary Organs. By Sir Henry Thompson, F. R. C. S., M. B., Lond. 1884. Philadelphia: P. Blakiston, Son & Co., 8vo.; pp. 147; cloth, $1.25; paper $0.75. (J. H. Chambers & Co).——Physiology and Psychology. By S. V. Clevenger, M. D. Chicago: Jansen, McClurg & Co. 8vo.; pp. 247; cloth $2. (J. H. Chambers & Co).——Micro-Organisms and Disease. By E. Klein, M. D., F. R. S. With one hundred and eight engravings. 1884. London: Macmillan & Co. 12mo.; pp. 191; cloth $1.00. (J. H. Chambers & Co——Treatise on the Diseases of the Ear. By D. B. St. John Roosa, M. D., LL. D. Sixth edition, revised and enlarged. 1885. New York: William Wood & Co. 8vo.; pp.718; cloth. (St. Louis Stationery & Book Co.)——Treatise on the Hemorrhoidal Disease. By William Bodenhamer, A. M., M. D. Illustrated by two chromo-lithographic plates and thirty-one woodcuts. 1884. New York: Wm. Wood & Co. 8vo.; pp. 297;cloth. (St. Louis Stationery & Book Co.)——Favorite Paper Cutter.——Dry Treatment of Suppurative Inflammation of the Middle Ear. By Charles J. Lundy, A. M.; M. D. (Reprint from Trans. Mich. Med. Sec. 1884.)——A Practical Treatise on Massage. By Douglass Graham, M. D. 1884. New York: Wm. Wood & Co. 8vo.; pp. 286; cloth. (St. Louis Stationery & Book Co.) ——Muriate of Cocaine in Ophthalmic Surgery. By C. J. Lundy, A. M. M. D. (Reprint from Physician and Surgeon).——Working Bulletin for the Scientific Investigation of Stigmata of Maize.)——Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States. 1884.——Quiz Compends. Surgery. By Orville Horwitz, B. S., M. D. 1885. Philadelphia: P. Blakiston Son & Co., 12mo; pp. 156; cloth. (J. H. Chambers & Co.)——On Therapeutical Applications of Electricity. By W. R. Steavenson, M. D., Cantab., M. R.

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C. P. (Reprint from British Medical Journal).——State of Illinois,—Draft of a Proposed Law Relating to the Care and Treatment of the Insane.——Biennial Message of John M. Hamilton, Governor of Illinois, to the Thirty-Fourth General Assembly,——Report of Proceedings of the Illinois State Board of Health.——Physiological Experiments as Applied to Digestion, Alimentation and Nutrition, etc.——First Annual Report of the Society of the St. Louis Training School for Nurses.——Proceedings of the Philadelphia County Medical Society, September 1883, to June 1884.——Report of Committee on School Hygiene in Tennessee. By Daniel F. Wright, M. D., of Clarksville, Tenn. (Reprint from Second Report of the State Board of Health.)——Vital Statistics in Tennessee. A Report by J. D. Plunkett, M. D., of Nashville, Tenn. (Reprint from the Second Report of the State Board of Health, Jan. 1, 1885.)——Hydriodic Acid, Hypophosphites in Phthisis.——Acts Establishing the State Board of Health.——Vick's Floral Guide, 1885.——A Contribution to the Relations of Ovulation and Menstruation. By A. Reeves Jackson, A. M., M. D. (Reprint from the Journal of the American Medical Association.)——Official Register of Physicians and Midwives now in Practice in Illinois. 1877-1884.——Therapeutics of the Respiratory Passages. By Prosser James, M. D. New York: Wm. Wood & Co. 1884. 8vo., pp. 316; cloth. (Wood's Library). (St. Louis Stationery & Book Co.)——Medical Botany of North America. Laurence Johnson, A. M., M. D. New York: William Wood & Co. 1884. 8vo.; pp. 292; cloth. (Wood's Library). (St. Louis Stationery & Book Co.)——Diseases of the Urinary and Male Sexual Organs. By Wm. T. Belfield, M. D. New York: Wm. Wood & Co. 8vo.; pp. 351; cloth. (Wood's Library). St. Louis Stationery & Book Co.——The Western World.—School Hygiene in Relation to Its Influence Upon the Vision of Children, or School Sanitation. By A. W. Calhoun, M. D. (Reprint from the Transactions of the Medical Association of Georgia.——The Social History of the Eighth International Congress. By D. Bryson Delavan, M. D.——A Useful Catheter for the Operation for Vesico-Vaginal Fistula. By Hal. C. Wyman, M. D. (Reprint from Detroit Lancet).——The Managements of Potts' Disease of the Spine in Young Children. By Hal. C. Wyman, M. D., (Reprint from the Medical Age.)——Acetate of Lead in Ocular Therapeutics. By David DeBeck, M. D.——A Bill to be Entitled an Act to Create and Establish a State Board of Health for the State of Texas.

MEDICAL LIBRARY AND MUSEUM BUILDING.—The House of Representatives passed February 16, 1885, a bill providing for the erection of a brick and metal fire-proof building for the records, library and museum of the Surgeon-General's office of the United States Army. It is to be erected upon the Government reservation in the vicinity of the National Museum and the Smithsonian Institute and cost not over $200,000.

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REPORTS ON PROGRESS

SURGERY.

Torsion of Arteries.—MAURICE NOTTA after sketching the history of this mode of hemostasis and describing the two methods of applying it, viz., the limited torsion of the English surgeons and the unlimited torsion in which the torsion is continued until the artery separates at the point of twisting, formulates the indications as follows: *Its quality is proportional to the quantity of elastic element.* Hence where the vascular walls are destitute of their middle coat from pathological or physiological causes it is not best to resort to torsion. Therefore it is not applicable to the aged or those having atheromatous arteries nor to the small arteries.

He regards it is a mode of practice specially adapted to the needs of military service. The first time that one sees and all the more practises, torsion of an artery, he experiences a certain emotion when he tells his assistant to stop the compression. It seems that when the blood wave comes, the twisted end so thin in appearance, raised at each impulse and beating regularly in the midst of the wound must soon yield and give exit to a strong jet of blood. There is no such danger, and the farther from the moment of torsion so much the farther removed is the danger of secondary hemorrhage. In fact there is very quickly deposited a layer of fibrine at the site of the twisted extremity; a clot becomes organized, and the shock of the blood wave weakens more and more. It is then at the very moment when torsion has been made, nothing being interposed between the blood and the obturator spiral, that the danger is the greatest. If the twisted end of the spiral has resisted at this moment, it is theoretically impossible that it should give way later, since the shock to be sustained will become more and more feeble, thanks to the formation of the clot.

Experiments on the cadaver have demonstrated the security of torsion as a means of closing the lumen of an artery.—*L' Union Med.*, Jan. 17. '85.

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Removing a Cinder from the Eye.—DR. WM. DEMING when riding in the cars got a cinder in his eye, and being unable to remove it himself appealed to a brakeman for assistance. He raised the lid and seeing the little foreign body took a hair from his head made a loop of it and slipping it over the cinder upon the conjunctiva easily removed it.—*New Eng. Med. Monthly, Feb.*, '85

Ligation of Vessels.—DR. N. SENN summarizes the results of a careful study of the literature of the subject and a series of experiments which he has performed in the following conclusions:

I. All operations on blood-vessels should be done under antiseptic precautions.

II. The aseptic catgut ligature is the safest and most reliable agent in securing provisional and definitive closure of blood-vessels.

III. A thrombus after ligature is an accidental formation which never undergoes organization and takes no active part in the obliteration of a vessel.

IV. The intra-vascular or definitive cicatrix is the exclusive product of connective tissue and endothelial proliferation.

V. Permanent obliteration in arteries takes place in from four to seven days, in veins from three to four days.

VI. In ligating vessels in aseptic wounds the vessel sheath can be opened freely without compromising the integrity of the vessel tunics, and such procedure renders the operation safer and easier of execution.

VII. The double aseptic catgut ligature should be preferred to the single ligature in ligating large arteries in their continuity near a collateral branch, and should always be employed in operations of tying varicose veins in their continuity as the safest and most effective measure in producing definitive obliteration.

Extraordinary Nasal Calculus.—Among the obstructions to nasal respiration are to be reckoned mineral concretions that may form upon the mucous convolutions or in the pockets formed thereby. Dr. Schmiegelow, of Copenhagen, describes a rhinolith that completely blocked up the left nostril. It was composed of layers of inorganic matter chiefly, calcium phosphate and carbonate, and magnesium phosphate. It lay upon the left inferior turbinated bone, and was removed at two sittings by breaking it away in pieces. The patient, a man aged 58 years, had had a fetid, purulent discharge from the left nostril for sixteen years. Such a rhino-

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lith might have been mistaken for a sequestrum, but the fact that there was no facial deformity excluded such a diagnosis.

MEDICINE AND THERAPEUTICS.

Tincture of Benzoin in Influenza and Catarrh.—ALFRED KEBBEL recommends the inhalation of the tincture of benzoin for relief of the hot stuffy feelings in the nares and fauces at the onset of an attack of influenza or an acute catarrh or common cold. It not only mitigates the suffering but materially abbreviates the course of the disease. Long inspirations should be made directly from the bottle containing it, first with one nostril and then with the other. No special inhaling apparatus is required.—*Brit. Med. Jour.* Feb. 28, '85.

Transmission of the Charbon Microbe from Mother to Fetus.—M. PASTEUR has presented before the Paris Academy of Science the result of experiments upon the guinea pig bearing upon the possibility of charbon germs passing from the circulation of the pregnant animal to its young. The effect of such inoculation is sometimes positive, sometimes not, sometimes one or several fetuses are thus infected, while the others of the same litter escape.

Cure of Writers' Cramp.—DR. A. DE WATTEVILLE reports that he has had the opportunity of watching the methods of a Mr. Julius Wolff in the treatment of several cases of writers' cramp by a series of manipulations and systematic exercises, rubbing, kneading, stretching and beating the fingers and the muscles of the hand and arm sometimes, also using elastic bands to assist or antagonize muscular movements.

Some of the cases which he has seen successfully treated were of several years' standing but were relieved in the course of a few weeks' treatment.

Mr. Wolff is not a physician but always carries out his treatment under the supervision of a physician.—*Brit. Med. Jour.*, February 14, 1885.

Asthma Caused by a Flaxseed Poultice.—GEO. C. KINGSBURY reports a case in which a woman had such a peculiar susceptibility to the smell of the steam caused by making a flaxseed poultice that the application of such a poultice to any part of her own per-

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son or making one near her would produce a very severe attack of asthma.—*Brit. Med. Jour.*, Feb. 7, '85.

Hammamelis in Hemorrhage from the Bowels.—RICHARD HALPIN reports the case of a cabinet-maker, aged 44, who had been subject to bleeding from the rectum for a number of years since an attack of pleurisy. The hemorrhage occurred periodically, lasting for a month and ceasing for a month. The blood passed in the morning immediately after the bowels were relieved and was usually fluid, bright, red and about two ounces in amount. He was free from piles, fistulæ, etc. He was treated by injecting into the rectum an ounce of the aqueous distillate diluted with a little water and administering a half dram by the mouth every three hours. The bleeding was promptly arrested and during several weeks that the patient was kept under observation there was no recurrence of hemorrhage.—*Brit. Med. Jour.*, Jan. 31, '85.

Monsel's Iron in Diarrhea.—E. T. WILLIAMS highly recommends the use of Monsel's salt, pulvis ferri subsulphatis, in the treatment of diarrheas where an astringent action is necessary. The dose in which he has found it serviceable is one to three grains for children, three to ten for adults. It may be given with opium or not according to indications. For adults the pill form is best.—*Boston Med. Jour.* Feb. 7, '85.

Nitric Acid Test for Albumen.—ALLARD MEMMINGER proposes a new modification of the nitric acid test for albumen in the urine. Comparing the action of nitric acid with that of picric acid and sodium tungstate the idea occurred to him that the failure of nitric acid to develop a precipitate of albumen which was thrown down by the more delicate tests occurred only in the latent form of albuminuria. After various experiments he found that if, after heating (boiling) the urine and nitric acid together, he plunged the test-tube into very cold water, a precipitate of albumen was produced which corresponded very closely with that caused by treating the same amount of urine with picric acid. He is disposed to believe that when nitric acid and heat used in the ordinary way fail to show a precipitate which more delicate reagents or the sudden cooling of the urine boiled with nitric acid does throw down, this precipitate is due to functional disturbance, not to organic change in the kidneys.—*N. Y. Med. Jour.* Feb. 7, '85.

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Meat Powders.—M. DUJARDIN BEAUMETZ suggests the extemporaneous preparation of meat powders which are so much used in the treatment of gastric disease and in forced alimentation. He says: "Take a certain quantity of boiled meat, cut it up into little pieces and dry it thoroughly by a water bath. Then grind the dissected product in a coffee mill, of which the teeth are made to approximate as closely as possible. You thus get a powder which is somewhat coarser than that made by the pharmaceutical houses, but of an agreeable taste and which answers the purpose very well."

He says that in all the cases where raw meat has been so much recommended meat powders are to be preferred.—*Therap. Gaz.* Dec., 1884.

ADMINISTRATION OF ETHER.—Dr. H. L. Burrell read before the Boston Society for Medical Observation a paper discussing the management of patients during etherization. He presents the following conclusions:

1. Before etherization the physician should satisfy himself regarding the presence or absence of heart disease.
2. The safety of the patient and the comfort of the etherizer largely depend on the use of pure anhydrous sulphuric ether.
3. The best medium for the administration is one in which the ether can be given in a condensed form, or largely mixed with air.
4. As a rule the patient should have a brief, clear description of the sensations he is about to experience.
5. A room free from bustle and confusion, before and after an operative proceeding, is an essential for quiet etherization.
6. Ether should be administered on an empty stomach.
7. The knowledge of the effect of a glass of wine upon a patient is frequently an indication of the exciting or stupefying effect that ether may have.
8. No mechanical impediment should exist in respiration.
9. The pulse and respiration are the safeguards of etherization.
10. The less ether used in an operative procedure, the better the recovery of the patient from the immediate effects of the operation.
11. A little ether in children goes a long way.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, February 19, 1885, President DR. MCPHEETERS in the Chair.

LACERATION OF THE PERINEUM—COMPLICATIONS.

Dr. Coles.—Mr. President, I have a case which is causing me a little anxiety at present, and suggests some interesting points for discussion. Yesterday two weeks ago I operated for laceration of the perineum upon a young woman who gave birth to a child when she was barely 14 years old, which resulted in a very severe laceration extending down to the sphincter, in fact I think a portion of the sphincter must have been ruptured; there was a very thin septum between the vagina and rectum. The operation went off very nicely and the patient did well; she had at no time any fever, never complaining of any pain and was in fine spirits. Her bowels in the meanwhile after the operation were constipated. A good many authorities recommend that the bowels be kept constipated for two or three weeks. At first I kept this patient's bowels confined for 13 days by opiates, and then ordered the nurse to give her a large warm water injection and a table-spoonful of oil and to repeat it, if necessary, on the next day. Yesterday I was called to see her; she had had one pretty free evacuation. Her nurse had given her quite a number of injections. The girl seemed very pale and had an anxious expression of countenance; she had been vomiting persistently; there was a wash-bowl with a great deal of yellow material in it by the side of the bed; she seemed to be very nervous, was trembling, and had a haggard look. I passed my finger into the bowel as far as I could reach and removed a few lumps of fecal matter. The lower bowel was not impacted with fecal masses, in fact there was little fecal matter within reach; all seemed to be soft and of a

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pultaceous consistency; there were a few lumps, but most of it was of proper consistency. I directed the nurse to lift her upon the chamber so that she might have more strength to move the bowels. She did so, but very little passed. I then concluded, as she seemed to be thoroughly used up, to give her a dose of chloral, which I hoped would quiet her nerves, and I thought if I could accomplish this perhaps the whole thing would blow over. The first dose of chloral was rejected, but two hours afterwards she was given a second, and she had a good refreshing sleep from it, but she woke up and vomited again. Then another large injection was given, but there was very little fecal material removed. To day she is still vomiting and has had no evacuation of her bowels. I presume that the trouble must be in the nature of an obstruction which has grown out of the constipated condition, though, as I say, at the time she took the dose of oil she had not complained of the slightest nausea. She has had a good appetite, and has been constantly begging for something to eat. I had kept her on rather a spare diet, so that in every way she was apparently in a condition of perfect health. This morning I ordered her ten grains of calomel and five grains of bicarbonate of soda, which I hope has been retained and may produce a free movement of the bowels. I saw her this evening, and she had had a pretty good action. In regard to the management of the bowels after this operation I am rather inclined to think that where the operation does not involve the sphincter, it is better, perhaps, instead of cutting the sphincter as was recommended by the old authorities, to give the sphincter a good thorough stretching and let the bowels regulate themselves. I think that if I operate again, instead of giving opium for the purpose of constipating the bowels, I would stretch the sphincter thoroughly, and then leave the bowels either to take care of themselves, or else I would give some gentle aperient from time to time and keep them open. I think probably that the tendency has been to keep the bowels constipated loo long, and believe it would be better if the bowels were not constipated, as it is necessary when they are constipated to forcibly eject large scybalous masses, which do as much or more towards tearing the sphincter and destroying the work done to the perineum than would be accomplished by a free, painless movement of the bowels every day.

Dr. Ford.—That is an interesting point, Mr. President, and I would ask Dr. Coles at what time he would stretch the sphincter; before passing the sutures or afterwards?

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Dr. Coles.—I would do it before, or, at least, before closing them.

Dr. Ford.—Before vivifying the parts then?

Dr. Coles.—That would be a good time to do it; but perhaps it would be better after vivifying the parts, because the parts are in a more natural position before they are stretched and you could probably perform the operation with greater facility before stretching them.

Dr. Ford.—This strikes me as a very sagacious and interesting suggestion, and one I shall think over very carefully. It happens that I have under treatment a case now of that character which I operated upon last Saturday; and the day before I operated I gave a good dose of castor oil. In my opinion we ought always to do this, so as to get the bowels pretty empty. I always do this and avoid the use of opium by the mouth, or morphine by the rectum if I possibly can, but I certainly do aim to keep the bowels constipated for four days after the operation, then to allow them to take their course. Thomas thinks that the bowels should be kept constipated until the stitches are taken out, but he quotes Thompson as favoring a lax condition. This, I think, is a mere intelligent view. It makes very little difference whether the bowels are kept lax or kept absolutely unmoved so far as the success of the operation is concerned; but when we consider that the stitches are applied, and the wall of the rectum brought forward and considerably stretched, and that the vaginal mucous membrane and uppermost wall of the rectum are stitched together, it is almost impossible that a movement of the bowels can take place if the feces are of any hardness without disturbing the parts operated upon. But if the motions drain away in consequence of a previous stretching of the sphincter, all disturbance is avoided, and the preliminary would not add materially to the gravity of the main operation. My own practice is, after the fourth or fifth day to administer an enema of warm water, avoid opium by the mouth or morphine by the bowel, as much as practicable; if the patient needs a laxative, give her sulphate of magnesia and sulphur, and follow that by an enema of warm water, and open the bowels gently in that way.

Dr. McPheeters.—Do you allude to the violent stretching of the parts?

Dr. Ford.—Yes, sir; and paralysis of the sphincter.

Dr. McPheeters.—It seems to me that this is a great deal better than allowing scybala to form; hard feces, when they come away must interfere with the integrity of the parts.

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Dr. Boislinere.—I think the suggestion of Dr. Coles a very valuable one. A woman at the Sisters' Hospital has been operated upon in this manner. I am in favor of allowing a free action of the bowels. It is a very good success in this case.

Dr. Prewitt.—I think it better to let the bowels alone, that is to keep them, if anything, lax but not to allow them to become constipated. It is the constipated bowel which strains the stitches. There can be no such thing if the bowels are loose, for the reason that the liquid or semi-liquid contents pass through the sphincter without any straining or stretching upon the anterior wall of the rectum.

Dr. Coles.—There will be more or less contraction.

Dr. Prewitt.—Yes; but I operated upon a case in which I gave the woman morphine every day and kept the bowel necessarily constipated, and when it became necessary for it to be removed it was accomplished by a warm water enema; there was no special trouble resulting from it.

Dr. Boisliniere.—The case leads us back to the discussion when Dr. Prewitt was going to express his view of the propriety of the immediate repair of the perineum. I would like to have the doctor express himself as to whether it should be repaired immediately after the rupture or whether we should wait.

Dr. Prewitt.—I had not intended to make any special point in the matter at the time, except to say that there might be a question as to what was the best thing to do under certain circumstances. Surgeons have never yet found a means of insuring the union of lacerated tissue. In fact we cannot always accomplish it in smooth wounds, although more frequently than in lacerated wounds. Now the point I referred to was this. In the ordinary operation we place the deep sutures in the perineum bringing together comparatively ragged surfaces; and it is not always possible to bring those parts so accurately together that there shall be no interspaces. There are little pockets in which there is some accumulation of fluid, and it is just in that condition of things where we have septic trouble set up. That is one of the great difficulties in amputations, —in fact it is the argument in favor of the open wound treatment in amputations, for we thus secure thorough drainage. It is almost impossible to bring the flaps together in an amputation in a way that there shall not be some spaces where fluid may accumulate, and induce decomposition and septic changes with poisoning of the

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patient. Now it is just so, I think, in cases of laceration of the perineum. We are likely to have retention of fluid in these interspaces, and this fluid is liable to undergo decomposition. Consequently we are liable to have septic trouble set up; and especially if inflammation of the parts is set up and union does not take place, the stitches serve to retain the discharges and favor absorption. Now, Dr. Barret's suggestion was simply to bring together the mucous membrane, and this of course would to a great extent obviate the trouble, as in that way there would be thorough drainage; it would be practically the open wound treatment, and the risk to which I refer would be obviated. But I have seen one or two cases where there has been septic trouble set up. One patient I remember, came very near dying; she had a temperatnre of 106.5° and I certainly think in that case there was a little suppuration due to the stitches. Now every precaution was taken so far as antiseptic treatment was concerned, carbolic acid washes were used abundantly, but she came very near dying from septic trouble. Another case did die of pyemia where every precaution was taken that could be thought of, and I was really very much inclined to believe that it was due to the stitching up of the perineum; and that if I hadn't stitched the perineum there wouldn't have been the trouble or suppuration along the line of the rent and along the route of the stitches. Of course I have stitched others that did very well, where there was no trouble at all, and which united very promptly, as happens in the great majority of cases. But looking at those two cases at the time this matter came up it looked as if the stitching might have something to do with setting up the septic condition.

I also remember a case of a woman in her first labor where there was a laceration of the perineum and a rent of the mucous membrane from the vagina upward, the mucous membrane also of the vaginal wall was torn nearly up to the cervix. I didn't sew that up, because I was apprehensive that, unless I could stitch up the rent in the wall of the vagina thoroughly in such a way as to prevent any possible accumulation of fluids along its track I would be likely to have septic trouble following, and if necessary the perineum could be repaired by a secondary operation. That lady had considerable fever on the third or fourth day, and I felt considerably uneasy. I felt that possibly I should have stitched up the perineum, but she got along very well, and really the lacerated perineum has improved immensely. I mean to argue simply that if we could fore-

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see that the operation would not succeed,or if we could believe that probably in any case it would not succeed, as it does not succeed in every case, it would be eminently better not to do it, because in any case where it doesn't succeed I am certain that it is likely to greatly add to the dangers of septicemia and pyemia and so on. If we adopt the suggestion of Dr. Barret, and simply unite the mucous membranes and leave the balance to fill up of itself, of course I cannot say anything against that, there would be no risk in that; on the contrary, it would be a protective measure and allow free drainage of the parts.

Dr. Coles.—He would keep the patient's legs together, wouldn't he?

Dr. Prewitt.—I suppose so, but that would not necessarily prevent the drainage.

Dr. Boisliniere.—Don't you suppose the immediate operation has been done too often?

Dr. Prewitt.—I suppose it has frequently been done when it was not necessary. I have no doubt in a great many cases there is repair to a great extent by nature that would obviate need for any operation. In cases where there was a degree of laceration that was rather startling I have seen repair take place to such an extent that it seemed to indicate that there was no need for operation.

Dr. Boisliniere.—I have seen such cases. I remember a remark of Dr. Hodgen on this subject of the reparative powers of nature. He said that in a great many cases it was unnecessary to take any measures for the repair of the perineum; that in a great many cases nature would perform almost a complete union, and in fact there would be a very good perineum left. I have seen tha constantly in my practice, and I suppose all of you have seen it. In a great many of these cases there is no necessity for operation. We will have a pretty good perineum without it, so that in my opinion the immediate operations are not necessary in all cases. Furthermore, I think that very frequently these immediate operations are followed by what we call a skin perineum simply; there is no deep union of the perineum, and unless nature has filled up intervening space by granulations you will have simply a skin perineum. The operation looks very successful, but if you put your finger in the anus and vagina you will find that there is no body to the perineum. I don't see many cases where I think operation is really called for. There is always a d of pocke orming which are apt to con-

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tain septic matter,and there is always danger when they are formed, you cannot get rid of the lochial discharge. I think, therefore, that immediate perineorrhaphy is very seldom called for. I am surprised sometimes to see how frightful the perineum looks immediately after labor, and yet how different if I wait a month. Even in some cases of complete rupture of the sphincter, nature by cicatricial tissue will provide a kind of secondary sphincter and the woman will retain her feces by the aid of this secondary sphincter,and she will not be troubled with incontinence of feces at all, so that I rise simply to enter my protest against the immediate operation to repair the perineum in all kinds of lacerations after labor. I think nature will do wonders left to herself,and you can never tell whether the operation will succeed or not. You expose the woman, by the formation of these pockets, to an additional danger of the production of septicemia. I prefer to wait and see what nature will do for the patient. In partial and unimportant lacerations the *serre-fines* have been proposed,an instrument which catches these parts and brings them together; the idea was suggested by theBrazilians. There is inBrazil a very large ant which has very long and strong mandibles. These ants having once taken hold never let go. The natives apply these ants to the apposed margins of a wound, and after they have taken hold of the parts the native surgeons simply twist the head off and the mandibles serve as a clamp. This is a living *serre-fines* which is nothing in fact but a hint taken from the giant Brazilian ant; it is a very painful operation, however. I should say that the immediate operation should be abandoned except in the very few cases where it is called for.

Dr. Prewitt—In cases of laceration which extend through the the sphincter would you perform the immediate operation?

Dr. Boisliniere.—I would wait in such cases; I think we are bound to wait sometimes for three or four months and operate if the sphincter is completely destroyed, but if the sphincter is simply *reached* by a considerable laceration we should operate immediately.

Dr. McPheeters.—Is not the argument in favor of these immediate operations that it is done for the purpose of preventing septicemia?

Dr. Boisliniere.—Well, it doesn't prevent it always.

Dr. Ford.—That is one of the arguments for the performance of the immediate operation. There is but little trouble in performing it, as there is no necessity for scarifying or denuding the parts.

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After the operation the parts heal in six or eight days and are completely repaired and in their normal position. There is a great deal of good sense in what Drs. Prewitt and Boisliniere have said, in my opinion, but I have often practised the immediate operation, and always with apparent good results.

Dr. McPheeters.—In the few cases of lacerated perineum which I have had I have usually waited for the late operation, and thus taken advantage of the repair which nature brings about, and have sometimes found that it was not necessary to operate at all. My last case, which occurred some five or eight weeks ago, was after an instrumental labor in which Dr. Ford assisted. The patient was a primipara, with a contracted pelvis. The child's head was large and could be delivered only by forceps. There was a laceration a little to the left of the median line, and this was the only instance in which I have resorted to the immediate operation. The delivery was effected at about 12 o'clock at night, and early the next morning I put in three or four stitches, not very deep stitches however, bringing together the mucous and submucous tissues. I used antiseptic washes and antiseptic dressing, and in that case the result was very satisfactory, there was no septicemia. I have confidence, like Dr. Hodgen, in the reparative powers of nature, and I think oftentimes lacerations which look formidable at the time are very completely repaired by nature without any operation.

Dr. Scott.—During the last six months I have been called four times to repair lacerations of the perineum of patients in the hands of midwives. At my end of town nearly two-thirds of the the cases are in the hands of midwives. I made the primary operation every time. I never wait, I never saw any necessity or any reason for waiting. In these 4 cases occurring in the hands of midwives and in one in my own practice during the last six weeks I have made this operation, and I have had excellent results with the exception of one case. In that case there was a rupture not only of the perineum but also of the neck of the womb. In this case I propose after awhile making an Emmet's operation. That is the only case that I have had in a long time in which I thought an Emmet's operation was justifiable, but of course I will wait until the perineum is healed up before making this operation; in fact I shall wait until she weans her child. In these other cases the result was most admirable and the recovery prompt. With one exception these cases were women with their first child in the hands of midwives. The last

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case in my own practice was a woman with her first child. I made a deep suture bringing the parts together as well as I possibly could, and there was a most beautiful result, the union of the perineum was most perfect. One of the worst cases of rupture of the perineum that I ever saw was in my own practice. I asked Dr. Hodgen to see the case with me the next morning. He made the operation at once, and there was a very admirable result. In these cases the sphincter was not involved. I do not see why in these cases when we can so easily approximate the surfaces and hold them in position by sutures, we should not perform this operation and give the patient a chance of recovery. Even if the primary operation does not succeed, it will not prevent a secondary operation. It does not interfere at all with the patient's recovery and does not render the danger of the second operation greater. The primary operation in my hands has been very successful, and I see no reason why I should not continue it.

Dr. Coles.—Dr. Scott has anticipated to a very great extent what I intended to say. I do not see the force in Dr. Boisliniere's statement that a great many cases are operated upon in which there is no necessity for the operation. Every physician and man of experience ought to be able to judge to some extent at least whether he thinks the operation is necessary or not, and even supposing that the patient would recover without the operation it is a simple matter to put in two or three stitches and bring the parts together, and I don't think there is a great deal of risk in putting in these stitches. I think with very rare exceptions we have no disagreeable results so far as pyemia or septicemia are concerned. Dr. Prewitt has mentioned two cases, but I have never seen a case. I have sewed up a number of lacerations and I have never seen any ill results. It has long been observed that where lacerations are only partial, and patients are kept clean and the limbs approximated, a surprising degree of reparation will occur—often avoiding the necessity of an operation. That is a point that we all recognize and that is thoroughly established, but still it cannot be denied that a great many ruptures take place where the sphincter is not involved, which will not ultimately heal without some subsequent operation. It seems to me that the chances are that the patient will do well and that the union will take place if the operation is done immediately, and I think it is well as Dr. Scott says to give the patient the benefit of it. Now

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I suppose that really the explanation of the fact that these cases do so well where the perineum is sewed up immediately is that the muscles have been thoroughly stretched by the birth of the child and remain weakened. Under such circumstances, especially if there is a pretty large head, the muscles are very thoroughly stretched so that there is more or less paralysis, and therefore when the parts are brought together there is very little contraction of the parts which are involved; they remain paralyzed and passive, just in a condition that is favorable to union. The point raised by Dr. Prewitt is true in a theoretical point of view; there is danger of the lochial discharge flowing down and it is liable to get into the interspaces between the stitches, etc.; and there is no doubt that in some cases it would be exceedingly dangerous; but notwithstanding the fact that it seems such a formidable objection theoretically, yet, as a matter of practical fact, we know that the vast majority of these cases get along well, and that patients very rarely contract septicemia from this cause. I remember a case in which I came near losing my patient from septicemia. It was a case in which there was an extensive laceration of the perineum, which was left alone for the reason that another physician who was present opposed the operation. He said he did not understand how the torn surfaces could unite, and the family found out that he was opposed to it and they concluded that it was best to wait. Of course I didn't oppose him. I merely said that if it were my case and I had the whole control of it I would certainly give the patient the benefit of the operation. The patient had violent fever, and symptoms of septicemia; and at one time her life was almost despaired of. She did, however, manage to recover, but subsequent troubles came on, such as prolapsus and so on, and two years afterwards she was operated upon. I don't think her health has been as good since. I find that women are very liable, if not operated on at once, to put off the operation until one or two children have been born and uterine troubles are apt to come on, so that I think by all means we should perform the operation immediately.

Dr. Gehrung.—How soon after labor would you perform the operation?

Dr. Coles.—Immediately, before leaving the house.

"THE SOUTHWEST MISSOURI MEDICAL SOCIETY" will hold its eleventh annual session at Springfield, Thursday and Friday, April 23 and 24, 1885.

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ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, January 27, 1885.—DR. A. J. STEELE in the Chair.

Dr. Todd presented a morbid specimen, discovered in the dissecting room, showing an advanced stage of Bright's Disease of the Kidneys, there being multiple renal arteries present on both sides.

Dr. W. C. Glasgow showed a hypertrophied heart, weighing twenty-four ounces, exhibiting marked valvular incompetency, and a lung from the same subject, which presented a rupture of its surface, caused by embolic softening. A history of the case was given with the specimens.

In reply to questions by Drs. Todd and Carson, Dr. Glasgow said that only a diastolic murmur could be heard over the aortic valves, and that the patient died at an early hour in the morning in a faint or syncope.

Dr. Nelson showed a sample of cod liver oil and peptonized milk in combination, and while commending the theory of its preparation, expressed some doubt regarding the stability of the combination in warm weather.

Dr. Homan then read the regular paper announced for the evening, entitled "The Course and Destiny of Population Infections." (See p. 193.)

At the conclusion of the reading the chairman invited remarks, and asked Mr. Robert Moore, C. E., who was present by invitation, to take the lead in the discussion of the subjects mentioned in the paper.

Dr. Moore responded, and, referred to the closing prediction in the paper, namely, that the present attainment and prospective growth of general knowledge on public health matters was such that municipal corporations would eventually be held liable in damages for losses to business interests, directly sustained through epidemics of avoidable or preventable diseases, whose introduction or fatal spread was due to ignorance or negligence on the part of the officials or agents of a city wherein such epidemics occurred, and said that while he thought the principle laid down was a sound and just one, yet he was not hopeful that such a liability would be soon admitted or established as a principle of law. He was inclined to believe that the proposition stated was as equitable as that city governments should be held liable for defective conditions of the

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highways, or that good cause of action against municipalities should arise through injuries received by persons because of such defects.

Dr. Funkhouser remarked that his belief was that disease was a question of life *vs.* life, or of animal preying upon animal. It was not necessary to go back to the beginning of life to establish a belief in the existence of organic agencies as causes of disease, or that these agencies were susceptible of being changed or weakened by their environment. The observations of Marshall Hall in this connection were referred to, and the known attitude of fungi toward certain forms of disease, together with conditions which result in their infertility, was discussed at some length.

Dr. W. C. Glasgow spoke of the obligation and liability of the city toward its citizens, and said that he hoped that such obligation and liability would soon be clearly and legally established, at least in respect of the deficiency of the public water supply in elevated portions of the city. Any scarcity of this kind was an added source of danger in the event of the appearance of cholera here, as is predicted for next summer.

Dr. Leete referred to the well-established legal principle touching the liability of municipalities for injury done to private property through mob violence, and was inclined to think that, in time, a like responsibility would lie in case of actual losses sustained through the occurrence of avoidable diseases.

In reference to the scarcity of water, alluded to by the previous speaker, he said that after all the fault or responsibility of such dearth lay at the doors of the citizens themselves, in their failure to perform their duties as good citizens, and voters in attending primary elections, and seeing that only proper and capable men were placed in office. The shortcomings of municipal legislators were then pointed out, and the statement was made that the local health department, as a department, had never actively interested itself in the solution of the local water supply problem, and had never urged the need of an abundant supply to all parts of the town on public health grounds.

Dr. Homan (Secretary)—remarked that he had invited the city counselor, Mr. Bell, to address the society at an early day on the question of the liability of cities for losses caused by epidemics, but that a press of business had compelled a declination. Mr. B. had, however, suggested the name of E. W. Pattison, Esq., as a

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gentleman thoroughly qualified to discuss the matter. On motion, Mr. Pattison was invited to present his views on the subject stated at a meeting of the society to be held on the twenty-fourth proximo.

Stated Meeting, February 10, 1885, Dr. M. D. Jones in the Chair.

Dr. Todd at the last meeting had presented a pair of kidneys showing a very advanced stage of Bright's disease, one of them being scarcely a kidney at all, it was so far shrunken. He said that the subject had turned out to be a sort of pathological museum. In addition to the diseased kidneys there was complete amyloid degeneration of the spleen and liver. There was also a great varicosity of the lining of the saphena vein from the knee down to the ankle, and he had also pericarditis with a large exudation of liquid and the heart itself was enlarged. He then presented the heart as a typical specimen of pericarditis, the entire heart being covered with exudation, and the pericardium as well. It was remarkable that a man could have so many things the matter with him and live as long as this man had. He was probably about 60 years old. In spite of this condition of the liver, spleen, kidneys and heart the body was still pretty fairly nourished. Of course as the case came from the hospital no record accompanied it, and there was no way of knowing how long the heart trouble had lasted.

Dr. Glasgow thought the other morbid condition was sequelæ of Bright's disease.

Dr. Todd stated that the gall-bladder was also enormously enlarged, and by compressing it the bile escaped freely.

Dr. Glasgow said that one interesting point about such cases of pericarditis was the slowness with which the effusion disappeared. It would take a long time for such surfaces as these to become clear of this effusion if they ever did, and that would produce a certain amount of irritation upon the heart for a long time. Another point was the readiness with which the inflammation would be lighted up again on slight provocation. He said that he had been attending a case of pericarditis, connected with rheumatic affection of the joints, in which the temperature had been normal and the pulse 80 for over a week. He allowed this patient to go out and take a little drive on a very beautiful day about a week before. Though he

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went in a closed carriage, the next day there was a rise of temperature and a rise of the pulse, and there had been a general recurrence of the symptoms. In all these cases great care should be exercised to keep these patients quiet for a long time after the disease has really subsided; that is after the acute symptoms have subsided.

At this juncture the Society took a recess and Mr. Foster exhibited to the Society his peptogenic milk powder, and demonstrated the methods of preparing the food.

Dr. Engelmann asked if it would serve in all cases or only in cases of impaired digestion?

Mr. Foster answered that it was good in all cases, whenever the child from any cause had to be taken from the mother before the time of weaning, that it was a complete substitute for mothers' milk.

Dr. Engelmann remarked that other foods were very excellent in some cases and there seemed to be no rule by which to determine that a child would thrive upon one food and not upon another, and the same might be the case here. This, no doubt, would serve an excellent purpose in some cases, but would it not like all the others fail in some cases?

Mr. Foster answered that there was hardly an infant food in the market in which there was not some form of farinaceous substance which was objectionable for feeding children. Some of these foods serve an admirable purpose. So far as this has been used it has given very great satisfaction. Cows' milk, no matter how much diluted, always curdles with a solid curd: when this food curdles it is in fine flakes so that it produces no irritation upon the stomach.

Dr. Grindon read a paper on small-pox (vid. p. 298)

Dr. Engelmann remarked that he had been interested especially in Dr. Grindon's statement of the effect on the puerperal and pregnant woman and that he had observed precisely the same effects. He had told of the effects of the disease upon blacks and whites and old and young, but he had missed one. He had not told about the unborn. Dr. Engelmann said that he had seen two instances of pregnant women with varioloid. One had been vaccinated in infancy; as to the other it was questionable; at least the scar was hardly perceptible. The eruption was very marked and the fever very high in both cases. One patient recovered in the sev-

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enth and one in the eighth month. In both cases a dead child was born prematurely after the disease had subsided in the mother. The pustules were perfect on the child in both cases.

Dr. Grindon said that he had only seen one case occurring in a pregnant woman, and there was no particular effect. The puerperal cases, as stated, were always fatal.

Dr. Homan asked if Dr. Grindon made any post-mortems in hemorrhagic cases and if so what the condition of the stomach and intestines was.

Dr. Grindon said the condition of the intestines was not examined. Perhaps the most striking thing observed *post-mortem* was the condition of the larynx and trachea. Some observer had remarked that the pustules and ulceration had never been found lower than the third ring of the trachea. His own recollection was that he had seen them much farther down, though of this he could not be positive. He had certainly seen them inside the larynx.

Dr. Homan asked Dr. Hardaway if in his experience the pustules ever formed in the lower intestines?

Dr. Hardaway said that in regard to the periods of the year in which small-pox prevails, he had no doubt that atmospheric conditions played a large part. He had no doubt that in the winter season the reason that we see more small-pox than at other times was owing to the confinement of the people in close rooms which aids the ready spread of the contagion. The people coop themselves together and the contagion becomes more concentrated so that it spreads more than it would were the doors and windows left open. The period of incubation, in his experience, was from nine to twelve days, as a rule. And as regards the rash or rashes that antedate the eruption he regarded them as exceedingly interesting features of the disease, particularly in a diagnostic way. These typical eruptions seemed to him to bear the same relation to the disease as the ingestion of certain drugs, as the iodide of potassium, or certain articles of food. There was some idiosyncrasy of the patient as in many cases of vaccination which are followed, by certain rashes. These were produced simply by the presence in the blood of material causing an irritation of the skin. That was the only connection that the rash had with the disease. Curschmann had pointed out two rashes, an erythematous rash and a hemorrhagic rash; an erythematous rash which might be either macular, not unlike the rash of measles, or a rash like scarlatina

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widely spread or hemorrhagic, and perhaps minute petechiæ sometimes about the size of a pin head closely aggregated. He thought that the rash taken in connection with other symptoms was of great diagnostic importance. As a point of diagnosis, although the doctor didn't touch upon diagnosis particularly, he laid great stress upon the appearance and seat of the early papules. Though it is not mentioned in the literature, the appearance of the papules first upon the wrist as well as upon the face was an important fact. He remembered that in some of these cases in feeling the pulse he had observed a peculiar eruption. Another point that he had noticed was that the eruptions upon the mucous membrane run through their course much more rapidly than they do upon the skin.

Dr. Mulhall asked whether the doctors had been in the habit of examining the throat before the skin eruption appeared?

Dr. Tuholske considered that quite a valuable means of diagnosis: another diagnostic symptom before the general eruption, was the appearance of the conjunctiva. In the small-pox epidemic of 1872 and 1873, there were something like 2,800 cases of small-pox in the city which passed through Dr. Hardaway's and Dr Buchanan's and his hands, either for examination or treatment or both. They preserved a specimen showing the effect of small-pox upon the fetus. The fetus was delivered at the sixth month. It was taken post mortem from the mother who died on the fifteenth day of the disease; and it was covered with the most typical pustules. In another case in which the patient recovered and miscarried at about the seventh month, they found the same condition. As to recurrence he remembered that at that time second cases of small-pox were not at all infrequent. In fact a number of patients were in hospital twice during the epidemic.

Stated Meeting—Feb. 24, 1885.—DR. WM. C. GLASGOW in the Chair.

Dr. Dean said that some months ago he had been promised some comma-bacilli, made or prepared by Dr. Koch, but had not succeeded in getting them. But he had a specimen, received a day or two before from a microscopic institute of Brussels, which he thought might be interesting for the members of the society to see. By way of comparison he brought also some tubercular bacilli prepared a day or two since from a case of consumption; and a very

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plain case, so far as diagnostic symptoms were concerned. The cholera bacilli were colored red, when seen in the evening a pinkish red. A good many of the specimens were just in a state of division, and almost all of them were curved. In this specimen, also, there were plenty that had gone on to a state of division into four parts, but not yet entirely separated, the first division in the middle being quite clear, the others barely perceptible. He said that Dr. Koch had lately modified his method of examining bacilli, especially those of tuberculosis. Dr. Dean had stained the tubercular bacillus by Koch's process, and that of Ehrlich, who still adhere to the use of nitric acid; it seems to bring them out better than anything else. It decolorizes them better by using fuchsine, or something of that kind, and aniline blue for coloring the background. He said that he had made ten or twelve preparations by the different methods from this consumptive patient, and there was a considerable difference in them. In some of the preparations there were very few bacilli,while in others there were a great many, so that it was necessary to be careful in examining the sputa, if we place any diagnostic importance upon it, as we might not find any bacilli in the first preparation.

Mr. E. W. Pattison read a paper on

THE LIABILITY OF MUNICIPALITIES IN CASE OF EPIDEMICS.

We regret that we can only give a few extracts from this most valuable paper. The following paragraphs give an outline of the argument. [ED. COURIER.]

He said—"There is nothing the average man holds more dear than life. There is nothing about which the average man is more reckless than health. The few violate the laws of health through ignorance; the many through an utter disregard of consequences. Some are tempted by appetite; others yield to passion; still others through sheer shiftlessness, indifference, or laziness, omit those precautions which experience has shown to be essential to the preserving of health. But whatever in each individual case may be the cause of physical ills, the state would have no right to interfere if the effects were limited to the individual." Considering the source of the right of the state to legislate on sanitary matters he says: "Laws looking to the maintenance and improvement of the public health derive their authority from the duty which the state owes to the community to protect the persons and property

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of its members. And no laws of this nature can claim a higher sanction than those aimed at the prevention of contagious and epidemic diseases."

He then stated the distinction between private and public corporations, the essential characteristic of the latter being that it shall possess governmental powers, all its authority being distinctly delegated to it by the state in the instrument usually called a charter. Its authority and powers being specially delegated to it by the state, the liabilities also are coincident with those of the state.

He says: "The general principle underlying the decisions is that a municipal corporation is not, in the absence of express statuary provision to that effect, liable to an action for damages, either for non-exercise of or for the manner in which in good faith it exercises discretionary powers of a public or legislative character. Thus where such a corporation has a discretion as to the time and manner of making corporate improvements, as, for example, grading streets, making sewers, drains, vaults, etc., neither *mandamus* nor a private action will lie against the corporation for omitting or neglecting to act. And the reason is that such powers are conferred to be exercised or not, as the public interest is deemed to require; and there is no implied liability for deciding either that the public interest does not require action or that it requires action in a particular way. And if in respect to a matter within its granted powers it has enacted bylaws or ordinances, it is not responsible for a failure to enforce such bylaws or ordinances, nor for the negligent manner in which its officers carry them out." He cited a number of cases illustrating this principle.

This rule, when confined to the acts of city officers, is stated as follows: "If the corporation appoints or elects the officers and can control them in the discharge of their duties, can continue or remove them, can hold them responsible for the manner in which they discharge their duties; and if those duties relate to the exercise of corporate powers, and are for the peculiar benefit of the corporation in its local, special interest, they may be justly regarded as its agents or servants, and the maxim *respondeat superior* applies. But if, on the other hand, they are selected or appointed by the corporation in obedience to the statute of the state, to perform a public service not peculiarly local or corporate, but because this mode of selection has been deemed expedient by the legislature in

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the distribution of the powers of the government, if they are independent of the corporation as to the tenure of their office, and the manner of discharging their duties, they are not to be regarded as the servants or agents of the corporation, for whose acts or negligence it is impliedly liable, but as public or state officers with such powers and duties as the statute confers upon them, and the doctrine of *respondeat superior* is not applicable. This is the language of Judge Dillon, and certainly puts the liability of the municipality for the acts of its officials as strongly as the adjudged cases will warrant.

"The state can itself punish judicial delinquency; but it would be destructive of all judicial impartiality, if the individual affected were given a right of action in every case where he might consider that there had been such misconduct. And the same rule holds where the duties are discretionary; because, if the powers conferred upon the officer are to be exerted or withheld according to his own view of what is necessary and proper, they are in their nature judicial.

"A case arose in this city which has become celebrated under the designation of the toe-case. One Murtaugh was sent to the City Hospital for treatment, and while there received physical injuries which resulted in the loss of a toe, and which he claimed were caused by the negligence and misconduct of the Hospital officials and servants. He brought suit against the city and obtained a verdict in his favor. The Supreme Court held that the verdict could not stand, applying the above stated rule, and recognizing the force of the authorities which I have cited.

"Such is the present state of the law. In Missouri, where there is no express statute on the subject, and so far as I am aware the same is true of all the states, municipalities cannot be held responsible in damages for losses to business interests incurred, whether directly or indirectly, by reason of the presence of epidemic diseases, even though the officials of such municipality through ignorance, incompetence, or negligence, fail to take the plain, efficient and proper steps to prevent the introduction and arrest the spread of such disease. For there can be no doubt that the powers conferred upon a city to enact ordinances and laws for the preservation of the health of its inhabitants are powers conferred for the public good, and not for the private benefit of the corporation as such."

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As to the question whether it would be advisable to so change the law as to create such corporate liability he answered negatively on account of the very great difficulty, amounting, as he believed almost to impossibility of its practical enforcement. But in addition to that he said that there was in his opinion a fundamental objection to such legislation, in that it is an attempt to punish a municipality for a lack of wisdom in its officers—not merely in its executive officers, but also in those who make its laws. Such a statute would impose a penalty for an honest mistake—for a mere error of judgment. It cannot be demonstrated to a mathematical certainty that methods upon which the majority are agreed will be always efficacious, or that in every possible case that might arise it would be the wisest course to adopt them. Yet the question whether or not it is expedient to adopt them is the one to be decided by the law-making power of the municpal corporation, the local legislature. "The question might be largely one of ways and means. Therefore the expense, and the possibility of securing requisite funds are matters to be considered; especially in Missouri, where the constitution limits by an iron rule the amount which any city can expend. Under such circumstances men equally honest and equally well-informed might differ as to the expediency of any given measure.

"A body of men entrusted with the duty of adopting one or the other of such courses, after due deliberation selects one. It may be that the one they select is known by men of more intelligence than they to be the wrong one. It may be admitted for the sake of argument that the large majority of people firmly believe it to be the wrong one. It may appear from the results that it was, in fact, a wrong one. Still the men, acting honestly and according to their best light, did what in their judgment was for the best. Is there any theory of law, morals, or common sense, by which they, or the body for which they act, can justly be made responsible for their erroneous decision?

"This reasoning applies to all municipal corporations alike. There are additional reasons peculiarly applicable to the City of St. Louis why such a liability should not be imposed. The provisions of the statutes and charter under which this city exists and exercises its powers would render such legislation most unjust, and would work a grievous hardship. Should our municipal assembly adopt a complete code of ordinances such as the most advanced knowledge as to sanitary matters might suggest, only the first step

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would have been taken towards the accomplishment of the object. The ordinances could not execute themselves. To be effective they must be faithfully and energetically enforced. The Board of Health must have the means of inforcing its orders promulgated in pursuance of the ordinances. The sole agency available for this purpose is the police force. But over its police the city has no control whatever. Neither the corporation nor its officers can appoint or remove a policeman. Even the municipal assembly has no authority over them. If a member of the force should be guilty of the most flagrant disobedience of orders, the city, as such could do nothing with him. Policemen are appointed, discharged, governed, and directed by a Board totally independent of the city, and in whose selection the city has no voice. It is true the Mayor, who is elected by the voters of the city, is *ex-officio* a member of the Police Board. But he is only one in five. The remaining four are appointed by the Governor and can be removed only by him. The police commissioners are state officers, holding their commission from the state, and responsible only to the state for the proper performance of their duties. The city as a corporate body is absolutely powerless in the matter of executing its own ordinances. It must depend upon a state agency to prevent or abate a nuisance, or to carry into effect any law enacted or order made for the preservation of the health of its populace. To hold it liable for damages arising from the non-enforcement of its legislation would be like mulcting a man for letting his house burn down, when he was himself bound hand and foot in the burning house.

It thus appears that every consideration which can be urged in support of the position taken by the courts when holding a municipality to be free from responsibility in these cases, applies with equal force against the propriety and wisdom of imposing such liability upon them by statute. The remedy for the failure to adopt and properly enforce such ordinances is not in providing a money compensation for the injury sustained, but in the selection of wise and progressive legislative and executive officers; to this end the people must be educated. Such associations as this which I have the honor of addressing, public discussions of this vital question, agitation through the public press—these will in time bring the desired results. Each city will be filled with a generous rivalry and a praiseworthy emulation to be the cleanest and the healthiest city in the land. Though the municipality

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ought not to be made liable for its nonfeasance, nor its misfeasance, yet there is every reason why the individual citizen should be made responsible for his part in inviting or spreading epidemics. Not civilly responsible, for many of the objections would obtain in the case of the individual which apply to the municipality. But he should be liable to fine, and such fine should be rigorously enforced. Boards of Health should pursue such a vigorous warfare against nuisances that no private citizen could afford to maintain one for a single day. If the authority already conferred upon such Boards is not sufficient, let it be augmented. For here is our safety. And as knowledge shall increase, and as science shall make greater and still greater strides in its combat with disease, as our Boards of Health are clothed with new and additional powers, and are sustained by a strong public sentiment, we shall witness from year to year more wonderful evidences of their efficiency, until an unhealthy city shall be the exception, and epidemics shall retire baffled and defeated.'

Dr. Schenck considered this a most interesting and exhaustive paper. He then introduced Dr. McClellan, of the United States army, who investigated the cholera epidemic in 1866, and whose name is familiar in the literature of that epidemic. In that connection Dr. Schenck stated that the cholera epidemic was the cause of the establishment of the first board of health, and that Dr. McClellan was in great part instrumental in its establishment.

Dr. McClellan expressed satisfaction that even on a very stormy night he had taken the trouble to come from Jefferson Barracks to St. Louis, in order to have an opportunity to listen to the able paper which he had heard. The idea of holding individuals responsible for the nuisances which they cause or continue is the proper and the only way by which we can arrive at the solution of the problem. He said that he would take that opportunity to correct a mistake which occurred in the work which he did some years ago, in relation to the city of St. Louis, and to which his attention was called by Mr. Robert Moore at the last meeting of the Health Association. Regarding the epidemic which occurred in St. Louis in 1866, he had had great difficulty in obtaining any facts, so that he had to rely upon newspaper files for a great many important points which he did obtain, and in thus relying upon newspaper statements for some of these facts, he was led to make a very grave error. He stated that there were 8,500 deaths from cholera in the

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city of St. Louis, and that statement went forward and stood, as far as he was concerned, as a correct statement, until Mr. Moore drew his attention to the fact, and upon a more careful examination of the figures and papers from which he made his computation, he was convinced that there was a mistake of 5,000 deaths, which mistake occurred in the following way: The statement was based upon one from the newspaper files, in which the total number of deaths was expressed in numerals. It was an old paper, and the figure 3 looked very much like a figure 8, and he had concluded that there were 8,500 deaths, instead of 3,500—a difference of 5,000. But still the mortality of 3,500 was a very great one, as shown by the mortality of the next epidemic of cholera, which struck the city in 1873. When, after a very careful consideration of all the facts which could be obtained throughout the city by soliciting personal information of all cases which had occurred, and of all the hospital reports that were on file at the Board of Health, there were found to be only about 300 deaths. The difference was undoubtedly due to the very stringent sanitary regulations that had been adopted, and it was undoubtedly due to the efficiency of the Board of Health and its officers. And from the way in which health matters are administered, it is to be hoped and he believed that the mortality would be kept at the very lowest figures, and the number of deaths be greatly diminished. And in order to secure a diminished mortality he regarded the necessity of supplying the citizens of the city of St. Louis with good drinking water as a prime necessity. He had been told that there were from 10,000 to 20,000 wells in and around the city of St. Louis, and it was to be feared that these might be a fertile source of contagion. He thought by the most stringent observance of sanitary laws it was possible that the mortality of the previous epidemics might be greatly diminished, if not entirely wiped out.

Dr. Todd asked Mr. Pattison if cities were not sometimes held responsible for damage done by mobs.

Mr. Pattison said they were not unless there was an express statute, not unless the constitution or statute made them liable.

Dr. Homan said that the question had received a little wider interpretation than was intended. What he had in his mind in proposing the question would be illustrated, perhaps, by a well which the city permitted to remain in the public street, and which could be shown to be clearly the source and centre of the cholera — as,

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for instance in a manufacturing establishment in which an epidemic occurred in London, in such a case would the city be liable? He remembered reading somewhere some instances where municipalities were indicted, and the local officials punished individually by imprisonment, in Connecticut, he thought, for neglect or failure to keep the streets in repair. The point that he intended to make was whether such questions would not soon arise because of the public enlightenment on these points.

Dr. Leete regretted exceedingly to learn that actions would probably not lie against the city, and this city in particular, for failure to perform a very plain duty just at this time. He said the city was doing nothing, or next to nothing that ought to be done, in order to prevent what seems to be a very threatening danger. It might be difficult to point out where all of the fault lay, and yet it must be very apparent to every observing person that the fault must be destructive. He had not a particle of doubt that the mayor was at fault and that the municipal assembly was at fault, and that the health department was at fault and responsible for the inactivity and apathy that characterized the city. But there was a fault beyond the mayor and the city government; and it was one that attention had been drawn to by Mr. Pattison. The fault was with the voters in this city, who were disposed, after the city government was set up, by very questionable means sometimes—he explained that by the city government he meant the officers who were elected from time to time—to leave everything to those officers, upon the theory that everything would be attended to, a theory which was very false, and whose falsity was being demonstrated every day. He wished to correct an error which Dr. McClellan had made about the wells. He had received a statement quite recently from the health department, in which it was stated that the number of wells in the city was about 9,000. The exact number was arrived at by farming out the work among the policemen, who visited each house and inquired as to the number of wells, cisterns and privy vaults, so that they might have a very complete report and a most trustworthy census of wells, cisterns and privies. In looking over the reports of the health department of this city it would be found that in 1868 the president of the board of health stated that he had a census of all the wells in the city, but Dr. Leete had not been able to find the number. Dr. Dudley, when health officer, had ascertained, as he stated, by very careful examination, the number of

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wells and cisterns; and the wells, Dr. Leete thought, numbered close on 6,000, and the cisterns close on 9,000. A considerable number of these wells—between 800 and 900, as he remembered, were found to have been sunk in made ground, and about 1,000 of the cisterns. Dr. Leete mentioned that they were having a struggle now in the house of delegates over the well-closing bill. This was causing more attention, perhaps, from the fact that the merchants and manufacturers, as represented by the Commercial Club, had taken a very lively interest in the matter. And at the last meeting, on Saturday night, they made a very careful canvass of the status of the several members of the house of delegates with respect to this bill, it having been given out some weeks ago that the saloon men would kill this bill, and it was interesting to see whether a few saloon men could control the house of delegates in this respect. It was supposed that these saloon men were interested in the wells, from the fact of their being at their places of business, or in the immediate vicinity, so that they drew the patronage of those who stopped to water horses, and who would go inside to quench their thirst, or increase it, as the case might be.

The Arkansas Industrial University (Medical Department) celebrated the sixth annual commencement exercises at the opera house. The degree of "Doctor of Medicine" was conferred upon eight young men. The number of students matriculated during the session was forty-one.

The annual address was delivered by Dr. E. R. DuVal, of Fort Smith. He referred to the relations of the profession to the student and young graduate, dwelt at some length upon the grounds for laudable pride that Southerners in general, and citizens of Arkansas in particular, may justly take in the evidence of progress and new life apparent on every hand. He spoke some strong, earnest words in favor of higher education, advocating the requirement of a thorough preliminary education, to the extent evidenced by the degree of A. B., from a reputable literary college, as an essential for admission to special professional study. He referred to the valuable work done by specialists, and closed with a reference to what had been accomplished by the University, and to the responsibilities that devolve upon the physician by reason of his professional relations to the community in which he lives.

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FOREIGN CORRESPONDENCE.

LONDON LETTER.

NUMBER OF DOCTORS IN ENGLAND.—HONORARY TITLES.—MEDICAL INSPECTORS.—LOCAL GOVERNMENT BOARD.—RESUSCITATION OF THE APPARENTLY DEAD.—TRANSFUSION.—UNIVERSITY SERVANTS.—CRETINISM, MYXEDEMA, THYROIDECTOMY.—BROWN LECTURES.—VIVISECTION.—THE HUNTERIAN ORATION.

LONDON, February, 1885.

During the last month the new Medical Directory for the present year was issued, and it shows that the total number of practitioners holding British qualifications is 25,810. The number of medical men residing in London is enormous compared to the population, there being one medical man to every 880 inhabitants. In the country the proportion is not so large, being one to every 1,903. It has been computed that it requires a community of at least two thousand souls to adequately support a medical man. In the country districts of England no doubt this proportion obtains, for many of the medical men whose names are included in the directory have, for some reason or other, retired from practice. The number of English practitioners now resident abroad has greatly increased, being 1,924, whereas two years ago they numbered only about fifteen hundred. The Medical Directory also shows that there are nine medical baronets, and about forty knights. All these gentlemen are addressed by the title of "Sir," but only the baronets transmit their title to their eldest sons. Mr. Gladstone has been particularly favorable to the medical profession in recommending certain of its members to the Queen for distinction. In 1883 five out of the nine baronets were created; no such single

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mark of Royal favor had been conferred upon the medical profession during the previous nine years. Those selected for honor were Sir William Bowman, Sir Andrew Clark, Sir Prescott Hewett, Sir Joseph Lister and Sir Spencer Wells.

The government have also, recently, at the urgent request of the Local Government Board, sanctioned the temporary appointment of six additional medical inspectors. Four of these inspectors will be engaged in making a general sanitary survey of the inland districts of England and Wales, whilst the remaining two will be engaged, in company with one of the permanent inspectors, in making a report on the port sanitary districts. These inspections are precautionary steps against the infection and spread of cholera, should it unfortunately makes its appearance in this country during the spring or summer months. The most satisfactory results are anticipated from the proposed inspections by Sir Charles Dilke and the medical officers of the Local Government Board.

The Board has also, with the concurrence of the United States government, made provision for the due disinfection of all cargoes of rags dispatched from this country to the states. If disinfection is not carried out in this country they are subjected to the process on their arrival in America; but most of the rag merchants have selected to have their consignments disinfected before shipment.

The Local Government Board in England has many duties to discharge. It is responsible for the national health and also for the administration of the poor laws, for the inspection of alkali works and workhouse schools, and also for the proper carrying out of the compulsory vaccination acts. This last office causes the board more anxiety than any other, as there is a strong feeling in the country against the acts. At the present time the Local Government Board has instituted proceedings against 5,000 persons in the town of Leicester alone for refusing to have their children vaccinated.

I have lately received from America "*The Rocky Mountain News*," of January 18, containing a marked article describing some experiments carried out by a Mr. G. A. Armitage, of Denver, whereby he has restored to life animals who have been apparently dead for several hours, by the transfusion of blood and artificial respiration. The subject has also been recently touched on by the "*Lancet*" in two papers by Mr. C. E. Jennings detailing experiments carried out by him upon dogs during last year at Ghent, in

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Belgium. But Mr. Jennings only succeeded in restoring life after the respiration and pulse had stopped for eight minutes.

The origin of transfusion appears to date as far back as 1666, when Dr. Christopher Wren, the Savilian professor of Astronomy, at Oxford, first suggested it. In the year 1666 the idea of transfusing liquor into the veins was improved by Dr. Richard Lower, who invented the method of transfusing the blood of one animal into another. This was followed by Dr. Edmund King, who rendered Lower's method more complete and easy; and various experiments were made, by direction of the Royal College of Physicians, upon horses, dogs and sheep. From England this invention passed into France, where J. Denis, doctor of physic at Paris, and Monsieur Emerez, performed this operation upon human subjects. Experiments of the same kind were likewise made by J. G. Riva at Rome. But this operation having been performed on Baron Bond, a son of the First Minister of State in Sweden (who was suffering from inflammation of the bowels) and on another person in the last stage of consumption, both of which proved unsuccessful, the practice fell into discredit, and was forbid by the king's authority in France, and by the Pope's mandate at Rome.

An anecdote is told of the performance of transfusion by Sir Busick Harwood, the Downing Professor of Medicine at Cambridge about the beginning of the present century. The blood of a sheep was transfused into the veins of a pointer, and more blood being admitted than was proper, the animal, sensible of plethora, began to eat grass, which instinct teaches them will produce sickness. An old bed-m er who was present immediately cried out, "Lord, maister, see if your dog ben't turned sheep already!" Our anti-vaccinators of the present day furnish abundance of similar wise conclusions from similar data.

The bedmakers at the universities are discreet females of mature age, who do most of the sewing required by the majority of students and residents in college. But the rich students and officers of the college, such as tutors and the like, have in addition a scout at Oxford and a gyp at Cambridge, who are male servants, who run on errands, brush the clothes, etc. The bedmakers appear not always to have been of the class of women who at present hold the office, for by a statute of the University at Cambridge, made in 1625, "it is enacted that no woman, of whatever age or condition, be permitted in any college *to make any one's bed;* or to go to the hall,

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kitchen, or buttery, to carry the provision to any one's chamber, unless she be sent for as a nurse; which nurse must be of mature age, good fame, and either wife or widow; but upon no account will *young maids* be permitted to attend the students' chambers."

Mr. Victor Horsley, in his recent lectures delivered at the University of London, in his capacity of Brown Professor of Pathology to the University, proved almost conclusively that cretinism, true myxedema, and cachexia, following thyroidectomy in man and animals, are due simply to the loss of the function of the thyroid gland. The lectures are so interesting, and of such importance with regard to the new theories concrning the office of the thyroid gland, that they should be read *in extenso*; any extracts that might be made from them would still leave the subject very incomplete. According to the will of a Mr. William Brown, who died some ten or twelve years ago, a large sum of money was left to found an institution for the study and cure of the diseases of animals. It was also prescribed by the conditions of the will that the holder of the chair of pathology attached to the institution should in each year give five lectures, detailing the results of the researches which had been carried out during the preceding twelve months. The direction and government of the institution was given into the hands of the Senate of the University of London, and four lectures of each year are directed to be given in the theatre of the university, but the fifth lecture has to be delivered at the Brown institution itself, and consists of a practical demonstration of the working of the laboratory and hospital. The work carried on at this institution has been a source of much annoyance to the opponents of vivisection, but the discoveries, including this last one, as to the function of the thyroid gland, have been and will be of incalculable benefit to the human and brute creation.

The anti-vivisectors in England have just now again been very active, and prominently among them has figured the otherwise sensible and respected Bishop of Oxford. In a recent lecture at the Royal Institution, upon "Living Contagia," Professor Tyndall alluded to the subject of vivisection. He first explained how Pasteur, in France, had been led to the study of the general question of fermentation, and how his investigations had been of the greatest value to brewers, by showing to what diseases yeast was liable. Some years ago disastrous losses had been incurred, over and over again, by the brewers of London, when five minutes' examination

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of the yeast would have shown them the disease from which it was suffering, and would have prevented them from using whey yeast. The microscope, however, was now used everywhere in the breweries of England. He then referred to the investigations of Lister, which had led to his system of antiseptic surgery; and then to the investigations of Pasteur in 1865, into the cause of the silk-worm plague which was threatening the ruin of the silk trade of France. He finally referred to Pasteur's and Koch's investigations into the origin of splenic fever, and ended up as follows: "When he (Prof. Tyndall) visited the *École Normale*, in Paris, he saw a case in which some guinea-pigs and rabbits (those which had been inoculated) were running about, munching their food in perfect health; others looked drowsy and languid; others were in the last agony, and others were in the rigor of death. It looked a very sad scene, indeed. He could imagine a tender-hearted bishop—with whose tender-heartedness he had the strongest sympathy—entering the laboratory of Pasteur. What do they think the bishop would have done? If he had the power would he not invoke the arm of the law to stop this "cruelty," as he would have called it? But in doing so he would assuredly have fixed the brand of cruelty upon himself, for in lieu of the units which had been subjected to the operation of the scientific man, he would have delivered over tens of thousands of these self-same animals to the ravages of splenic fever. So they must look beyond the momentary suffering—look beyond the present—to the incalculable issues that arose from these experiments. It behooved them to look on all sides of the question. As far as he was personally concerned, he knew nothing about cruelty to animals, and would not tolerate it for an instant. But let them look at the cases where the bacillus ate the life away, and say, 'Is it not worth while to try and combat these things?' Never in the history of medicine had a brighter day dawned than the present, but let them not be deterred in their efforts by mischievous legislation."

I cannot bring this letter to a conclusion without a reference to the oration delivered on the 14th of this month, at the Royal College of Surgeons, by Professor John Marshall, of University College Hospital, in honor of John Hunter. The Hunterian oration is delivered every two years by some distinguished Fellow of the college (usually one who has held the post of president), and some notice of it ought to find a place in our journal, the cover of which is graced by a portrait of John Hunter.

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Professor Marshall, after some introductory remarks, said that John Hunter was an accomplished human anatomist, and, as a physiologist, zealous and accurate in experimenting. Not only as a physiologist, but as a pathologist, he was a great vivisector, and were he now living he would be with those who claimed the right of man for beneficial purposes, or even in the pursuit of knowledge to attempt to discover the processes of animal life by tests and trials on living animals. All his experiments were necessarily performed without anesthetics, but he would now approve of their use on all possible occasions. Disregarding the objections of those who insisted on the uselessness of experiments on animals, so far as concerned their application to man, he would doubtless contend that every ascertained fact concerning the processes of life must contribute its quota towards the attainment of more perfect knowledge. Hunter did not spare even his own body, but subjected himself to an inoculation experiment of a very grave character, in order to test opinions on a pathological question, and to put to proof the efficacy of certain variations in treatment. As to the view which Professor Marshall believed that Hunter would entertain concerning the prevalent doctrines of evolution, he pointed out that his writings indicated that he would have discerned the Darwinian doctrines of "Modification in Descent," and "The Survival of the Fittest." Had he lived he would have been a staunch evolutionist, and they might picture him devouring with eagerness the writings of that school of naturalists, and especially those of Darwin. There was, indeed, in many respects, a similarity between him and Darwin, and as in life those two great researchers after nature's laws bore a certain resemblance, so in death it had been the fate of both naturalists to lie in the same consecrated soil. The orator then considered Hunter's mental attitude toward the present conditions of the sciences of morbid anatomy and pathology, and that of the modern practice of surgery, in the course of which he observed that Hunter's reflections as to specific fevers, due to miasma, chimed in with the modern questioning as to the recent origin of scarlet fever and typhoid, cholera and diphtheria. As in physiology so in pathology his views passed beyond the apparent limit of his subject. If it could be now demonstrated to Hunter that whilst mountain air contained minute organisms in units, country air in hundreds, town air in thousands, and hospital air in tens of thousands, and he had explained to him the relations of such organisms to the fermenta-

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tive and putrefactive processes, the dangerous or fatal results of the entrance of septic matters from the surfaces of exposed wounds into the blood, and the established efficacy of so-called antiseptics in destroying such organisms and arresting the attendant decompositions, he would hail the discoveries of Pasteur and the discoveries of Lister with the gratitude they deserve. Whilst Hunter might probably have disapproved of the growth of specialties as a departure from the simplicity of the art which he practised, he would soon find that it was a necessity as well as a cause of the vast accumulations of facts and knowledge since his time. There was one specialty which as a great surgeon, as well as a great experimentalist, he would be doubly prepared to receive with acclamation, viz., the discovery and use of anesthetics, as one of the greatest boons ever conferred on sensitiv e beings whether animals or man. How was it they could look back over the intervening century since Hunter was in his prime, and find him so at one with them, and themselves so in harmony with him? It was because their work and thought to a great extent pursued the lines which he had laid down. The issues in which they joined were his; the instruments and weapons might have improved, but the strife and method were the same. They believed in observation and experiment, and Hunter devoted his whole active life to both. He followed nature and endeavored to detect her ways for the benefit of his fellow men. They in their time were aiming at the same great end.

E. V. A.

MISSOURI MEDICAL COLLEGE.—This institution held its forty-fourth annual commencement at the Olympic theatre Tuesday afternoon, March 3. The graduating class numbered eighty-eight, just two for each year of the existence of the college. Nine of the class were St. Louisans. The others came from different states, and one from Ireland.

The valedictory to the class was given by Dr. T. F. Prewitt, the dean of the faculty, who took as his subject "The Relation of the Public to the Profession." He took occasion to show that the people in general fail to appreciate the responsibilities and obligations that devolve upon the profession, and that they are disposed to put more confidence in self-asserting, arrogant humbuggery than in honest, self-respecting science.

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SELECTION.

DIAOGNOSTIC VALUE OF THE SOFT PALATE, AS COMPARED WITH THE TONGUE, IN CERTAIN PATHOLOGICAL CONDITIONS.

By Wm. Abram Love, M. D., *Professor of Physiology in the Atlanta Medical College, Atlanta, Georgia.*

In the current medical literature of the day—in the authorized text-books of our schools and, more particularly, in the standard works of the old writers much stress is placed upon the appearance of the tongue, as an index to certain pathological conditions of the system. In an especial sense were these varied appearances regarded as indicative of the condition of the stomach, the intestinal canal, and the hepatic secretions. That these appearances were sometimes erroneously interpreted, was very vividly impressed upon my mind, in my early professional life, by a foot-note in a small but valuable work then recently from the press. I may be excused for quoting that foot-note in its entirety, in this connection, as it will serve me a purpose just here, and may, as it has me, serve others a purpose elsewhere.

In describing, for illustration, a case of "clavus hystericus of the head, kept up by inanition," the writer says [Billing's Principles of Medicine—Amer. Edit., 1842—p. 220–221.]: "——there was no fever; the pulse was jerking, as we find after hemorrhage (repeated blood-letting), but not firm; the tongue not foul, but white, as we always find it with an empty stomach." Then comes the foot-note:

"I say, always; and there is not a more common error, than to consider this natural appearance morbid. Thus, persons who are in the habit of thinking themselves bilious, and taking physic, look at their tongue when they rise in the morning, and find it

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white. A good breakfast will make it look red, unless they take a dose of salts, Seidlitz powder, or sometimes even whether they do or not. The same person will, perhaps, put out the tongue before a looking-glass just before dinner time, and, seeing it white, forego a part of a wholesome meal, which would bring the tongue to the natural color of redness which it assumes after eating, from its natural paleness before eating, unless they be gourmands and hypochondriacs at the same time; in which case they will run the hazard of eating, and take a calomel 'peristaltic persuader' afterwards. I have been, constantly, in the habit of warning my young medical friends to consider, when they see a white tongue, what time of day it is, and not to purge for merely a white, or, more properly, a pale tongue.

"The tongue is constantly very properly inspected, in disease, as it affords an evidence of the state of the mucous membrane of the stomach and bowels with which it is continuous. In health it is not of a bright red, but has a pale bloom on its surface, in consequence of the tips of the villi or papillæ being less injected with blood than the lower parts; when the stomach is empty, it contains less blood; its villi are, of course, paler, and those of the tongue are nearly white; but observe, the tongue is moist; whereas, in the beginning of synocha or pleurisy, or other inflammation the stomach is empty from anorexia, and the tongue is white; but it becomes drier than from a mere empty stomach and more or less coated, arising from the evaporation of the watery parts of the saliva and mucus of the mouth, which leaves the membrane indued with a more viscid covering than natural. After eating, when the stomach is in a state of healthy activity, the tongue becomes redder; but still it is not of a bright red hue, which only takes place when the membrane of the primæ viæ is in a congested or inflamed state, as in dysentery, in phthisis when colliquative diarrhea exists, at the termination of typhoid fever when there has been (in reality) gastro-enteritis or inflammation of the glandulæ agminatæ, etc.

"In the progress of severe fever, when the secretions are suspended, the tongue becomes dry, and the mucus which does exist dries, and forms a brownish or blackish crust, and the papillæ become so much shrunk down to the level of the rete mucosum, that when the tongue becomes clean on recovery, it looks glazed and smooth, and some time elapses before the papillæ rise up again.

"In chronic affections, accompanied with a languid and flabby

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state of the primæ viæ, a discolored state of the mucus occurs, constituting what is called a foul tongue."

Few more concise descriptions of the pathognomonic indications presented by the appearance of the tongue will be found in our medical literature; but these relate more particularly to the appearance of the upper surface of the tongue as indicating physiological or pathological conditions of the mucous membrane of the stomach and intestinal tube, yet the tongue is in many cases—as well as other portions of the oral cavity—an indicator, pointing to many and varied pathological conditions of the general system, and of special tissues. As a contribution illustrative of this may be mentioned "A Peculiar Appearance of the Tongue in Malarial Diseases."

While the appearance of the tongue, indicative of physiological and pathological conditions of the alimentary mucous membrane presents itself on the upper papillated surface, the border and outer edges present the peculiar appearance indicative of malarial toxemia. It consists in a peculiar pectiniform appearance of the edges of the tongue, as though these edges had been under the pressure of the sides of the teeth of a comb—just as, in certain "languid and flabby" states of the primæ viæ we find the edges presenting a crenated appearance, produced by the indentations resulting from the pressure of the teeth in the oral cavity—just within this pectiniform edge making the outer border of the upper surface of the greater or less width in different cases, or different degrees of malarial toxemia, there appears a smooth margin, both the pectiniform edge and the smooth margin presenting a cleaner appearance and a brighter hue than the other portions of the surface of the organ. For over thirty years, in an active practice, most of the time within malarial districts, these peculiarities of the edges and borders of the tongue have been marked as indicative of malarial poison, not only in the malarial fevers of the paludal districts, but in the protean forms and varied complications through which the effects of this subtle poison may be traced. While it had been my good fortune, in early professional life, to detect this condition as a pathognomonic indication of malarial poison, which experience, until this day, has more fully confirmed, and, while I have profited by it during these long years of professional toil, still, to my friend, Dr. T. C. Osborne, of Greensboro, Alabama, is due the credit of having first called the attention of the profession to the fact through the

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recognized channel of communication—the medical press (vide *Trans. Amer. Med. Assoc.*, 1869), and I take pleasure in awarding him this credit, with the expression of regret that his paper did not fall into the hands or attract the attention of more of my professional brethren.

Dr. Osborne has preferred the term "crenated edge" in his description given in his paper. This, to our mind, without an illustration (which he presents), would more nearly convey the idea of the indentations produced by the teeth in the oral cavity in the flabby condition alluded to above, when the term "crenated" is applied to such a body or organ as the tongue; we have, therefore, held to our original descriptive term, pectinated, or pectiniform, with the explanation, illustrative, given above.

These allusions to certain conditions of the tongue, as indicative of certain pathological conditions of the primæ viæ, or of the general system, have been made more particularly as introductory to, if not illustrative of, certain other conditions often presented in another portion of the oral cavity, and their value, in a diagnostic, as well as a pathological and therapeutical point of view. We allude to—

THE VALUE OF THE APPEARANCE OF THE PALATINE VAULT AND SOFT PALATE IN DIAGNOSIS.

On the sides of a median line drawn from the point of the alveoli separating the two central superior incisor teeth to the center of the base of the velum palati, there are two elliptical, or almond-shaped spaces, where the inferior surface of the palatine bones is covered with only periosteum and mucous membrane, constituting we will say the palatine vault or dome. An extension of this membrane backwards, united with a like extension from the superior surface of the bone, or the floor of the nasal cavity, to the velum palati and anterior half arches, constitutes the soft palate —the palatine muscles to some extent taking the place of the palatine bones. This muco-periosteal and muco-muscular membrane is supplied with blood by the superior palatine and naso-palatine arteries, whose branches anastomose with each other, and with their congeners. Their capillaries, particularly in the palatine vault, though exceedingly numerous, are, at the same time, exceedingly small, so much so that they allow of the passage of blood corpuscles to only a very limited extent in their normal condition,

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as in the conjunctiva, sclerotica and other membranes and tissues that circulate alone, liquor sanguinis normally, and blood corpuscles pathologically. The great vascularity (capillary) of both the mucous and the periosteal membrane, together with the great transparency of the same, and the bony and muscular base, gives us an opportunity of noting conditions that are of vast importance, both pathologically and therapeutically. Among these may be enumerated:

1. The color of the liquor sanguinis.

2. The arteriolic tension, or atony, in resistance or non-resistance to the passage of blood corpuscles; or, in other words, by the inspection of these spaces we are enabled to approximate an estimate of the amount of coloring matter (biliverdine) tinging the non-corpuscular blood tissue, in the first place, and secondly, we are enabled to approximate pretty correctly the "working" of the vaso-motor nerve system, particularly along the line of the alimentary canal. (This does not apply, we would parenthesize, in cases of local irritation in these palatine tissues, except so far as relates to these local membranes.)

Practically these facts are of much advantage, and, for over a third of a century, I have been in the habit of taking advantage of them as guides in the diagnosis and treatment of disease. During this period the rule has been, with me, to examine the roof of the mouth as regularly as I have occasion to examine the tongue. So constant has been this habit with me, that I have been frequently asked the question by medical students. "Why do you always examine the throats of your patients in the clinics?"

I have found that in that condition of the system to which the term "bilious" has been applied, this muco-periosteal membrane invariably presents the yellow hue of lighter or deeper shade, indicative of the existence of billiverdine in the liquor sanguinis. This yellow tinge or color will vary in different cases, or at different times in the same case, from the lightest canary to the deepest orange or saffron, and the depth of shade will indicate the amount of "biliousness," or the extent to which biliary coloring matter is retained in the blood tissue. As this tinge deepens, the skin becomes more and more sallow, approaching towards that appearance exhibited in mild cases of acute jaundice. In all cases, under any and all circumstances, where bile has been "re-absorbed," or where it has not been eliminated from the blood, in malarial toxemia,

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in duodenitis, in biliary cysts, and in every condition of the system where, by its existence in the liquor sanguinis, or where, as a result of such pathological condition, the tissues become tinged, the color will present itself first and deepest in the muco-periosteal membrane in the mouth as designated above. The only condition obstructing its appearance will be where there exists engorgement or irritation, inflammation, distending the minute capillaries to such an extent as to admit of the blood corpuscles, when the redness of the tissue swallows up the fainter yellow hues. By examining this portion of the roof of the mouth we gain a better knowledge of the condition of the portal system and hepatic action than the tongue indicates as to the condition of the stomach, in the circulation in its mucous membrane or the action of the gastric glands.

In all that class of diseases in which the general condition of the system demands the use of remedies known as cholagogues, of whatever kind, and in all forms and complications, experience has taught me that I risk nothing in saying that the muco-periosteal membrane in the roof of the mouth will by its yellow tinge invariably indicate the necessity for their administration; *per contra*, I may say, with equal confidence, that the absence of this yellowness indicates, with equal certainty, that such remedies have been sufficiently used or are not needed. For thirty years this has been my guide, and I do not feel to-day that I have ever been misled by it. Other members of the profession, whose attention I have called to the fact long years since, tell me that as a guide in their daily professional work, it has served the same good office. Attention to it will do away with much of the use of, or rather abuse of, calomel.

In other pathological conditions than this, the appearance of the palatine surface will serve us a good purpose as a guide. Thus, for example: in all that class of diseases known as exanthema majora, the eruption makes its appearance in the roof of the mouth, from twelve to twenty-four hours, and in many instances longer, before it appears on the cutaneous surface. In small-pox, in scarlet fever, in measles—in all their grades—the eruption may be looked for with confidence in this region long before it can be detected at any other point, and, as the eruption is often the last link in the chain of evidence necessary to decide a question of diagnosis, the knowledge of this fact will always equal the impor-

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tance of the question at issue; it has, in some instances, served me a valuable purpose.

In intestinal irritation and inflammation, in the approach, progress and decline of enteritis and dysentery, the soft palate is a better indicator as to the condition of the intestinal mucous membrane than the tongue.

In the rise and progress of such cases there is vascular engorgement of the palatine mucous membrane, indicating a like or worse condition along the line of the intestinal canal—a little attention to which will familiarize the practitioner with the varied changes in the appearance of the one, as pointing to the pathological conditions existing in the other.

In cases where this yellow tinge of the soft palate presents itself, another and more general disturbance will be found in the systemic capillary circulation. If, under pressure, the blood corpuscles are forced out of the cutaneous capillaries on the back of the hand or the wrist, the subcutaneous tissue will present, as seen through the skin, more or less of a yellow tinge, such as is seen in the soft palate, or in case of jaundice, varying in different cases as to depth of shade. Not only this, but the blood will be found to return tardily to the capillaries, showing a passive capillary circulation not consistent with healthful action—a torpidity interrupting both assimilation and elimination. This condition results ultimately in a pathological accumulation of the effete products of physiological combustion in the organism. These in turn produce depressions. Beginning in the peripheral nerve filaments and ultimately affecting the nerve centres—the entire system becomes involved. The relation existing between the peripheral nerves and the capillary system and their reciprocal action, the one or the other, has not as yet been satisfactorily explained. Still it is evident that the non-elimination of the effete products of combustion in the organism result in depressions—depression in the ganglionic system interfering with trophic action—with assimilation and disintegration—depression in the sensory system, giving rise to neuralgias and other disturbances of sensation—depression in the motor system impairing action and tonicity of the skeletal muscles—depression in the cardio-motor and vaso-motor system interfering with blood speed and blood pressure—all these disturbing healthful functional action. In these the effect adds continuously to the cause, the case becomes more and more complicated, until the tissues give

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way and organic disease is established where mere functional derangement had formerly existed.

These may seem trivial points in the investigation, but by giving them attention in time, by recognizing these facts and resorting to such remedies as will remove these dead elements—the smoke and ashes of physiological, perchance pathological, combustion that act like Dead Sea waters, supporting no living thing—serious consequences may be averted and healthful action restored.—*Atlanta Med. Jour.*, Feb. '85.

WOOD'S LIBRARY OF STANDARD MEDICAL AUTHORS.—The value of Wood's Library, which is now in its seventh year has increased with each year. We know of no other way in which the amount of fifteen dollars can be more profitably invested in medical books than by subscribing for it.

The following is the list announced for 1885:

1. Human Osteology by Luther Holden, sixty-four full page plates and about 80 fine wood engravings.
2. A Handbook of Physiology by Kirke, Eleventh English edition, by W. M. Baker. Colored plates and about 204 fine wood engravings Vol. 1.
3. A. Handbook of Physiology by Kirke, Eleventh English edition, by W. M. Baker. About 250 fine wood engravings Vol. 2.
4. Disorders of Digestion by Dr. Geo. B. Fowler.
5. The Wasting Diseases of Infants and Children by Dr. Eustace Smith.
6. Poisons. Their Effects and Detection, by A. W. Blyth. Vol. 1.
7. Poisons. Their Effects and Detection, by A. W. Blyth. Vol. 2.
8. Epilepsy and other Chronic Convulsive Disease; by Dr. W. R. Gowers.
9. Climatology and Mineral Springs of the United States, by Dr. A. N. Bell.
10. Microbic Diseases; by Prof. Germain-Seé. Translated by Dr. E. P. Hurd.
11. Clinical Lectures on Diseases of Children, by Dr. Ernest Sansom.
12. Title to be announced hereafter.

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OBITUARY.

DR. P. V. SCHENCK.

Dr. P. V. Schenck was born in 1838 at Franklin Park, Brunswick, N. J., where his father was a practising physician. He was one of a family of nine children, six of whom were sons, all being in professional life. Our friend graduated at Princeton College and at the Medical Department of the University of Pennsylvania. After practising for about a year he entered the regular army of the United States, in which he served for some ten years, being in service during the whole time of the late war and resigning in 1866. He was a member of Gen. Hancock's staff and medical director of this department. After resigning from the army and locating for practice in St. Louis he twice served as Health officer of the city and in the spring of 1875 he was appointed superintendent of the St. Louis Female Hospital, which position he filled until November, 1882, when he resigned that position and returning to the city entered into private practice, confining his attention to obstetrics and gynecology.

He was chosen a clinical instructor in the department of Diseases of Women at the Missouri Medical College where he rapidly built up a large clinic. He was likewise doing a large private practice.

Dr. Schenk was one of the number of physicians who were concerned in establishing the COURIER OF MEDICINE, and served as a member of the Executive Committee of the Association in 1883.

He had suffered for some years from chronic Bright's disease, though very few even of his intimate friends were aware of the fact. His death occurred very suddenly. He returned home late in the afternoon, very much fatigued with a hard day's work and suffering severe pain. He lay down and took some medicine, and

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at nine o'clock was feeling much better, and thought he would be able to sleep. In less than a half-hour he was dead.

He died in the midst of his best and most successful work, leaving many friends to mourn his loss. We append hereto a memorial prepared by his former assistants at the Female Hospital.

The former assistants of the late Dr. P. V. Schenck at the St. Louis Female Hospital and Poor House, now residing in or near the city, assembled for the purpose of expressing their grief at his loss and reverence for his memory, do resolve:

That we one and all bear testimony to his efficiency and constant careful attention to his duties as a public officer. That as Superintendent of the Female Hospital and Medical Supervisor of the Poor House he deserved and commanded the respect and thankfulness of his associates, subordinates, and of the entire community.

That through his wide reading, vast experience, natural powers and aptitude for his profession, and almost unlimited capacity for work, he had attained a degree of skill rarely met with, and that this he made use of as unstintingly and conscientiously for the friendless hospital patient as in the families of the wealthy.

That he possessed to an exceptional degree the faculty of imparting information; that he delighted in contributing to the improvement in their chosen calling of the young men with whom he came in contact, and that we feel personally his debtors, not only for knowledge acquired from his lips, but much more for the benefit of the lesson of his daily life.

That more than all, in the death of Dr. P. V. Schenck we have each lost a true, generous friend, ever ready by kind or wise word or thoughtful act to do all that lay in his power to guide, direct or assist us. That our consolation in losing him is the appreciation of our privilege in having known him.

That a copy of these resolutions be forwarded to the family of the deceased, and to the ST. LOUIS COURIER OF MEDICINE, the *Weekly Medical Review* and the *St. Louis Medical and Surgical Journal* for publication.

For the former assistant physicians by the committee,

M. H. POST,
JOHN G. ROBERT,
H. G. MUDD,
JOSEPH GRINDON.

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DR. LOUIS ELSBERG.

Dr. Louis Elsberg, who died February 10, 1885, was a native of Prussia, but came in early boyhood to this country, his parents settling in Philadelphia. He graduated in medicine at the Jefferson Medical College in 1857. He had already determined to make a special study of the diseases of the throat, and went abroad for that purpose. He was a pupil of Tobold in Vienna. Returning to America he entered upon practice in New York, and in 1861 was made professor of laryngology in the Medical Department of the University of New York.

The following year a public clinic, said to be the first one for diseases of the throat and nose ever founded in the world, was established by the college. Dr. Elsberg soon acquired an enviable reputation as a laryngologist and therewith a handsome income. He was a skilful operator and an able writer and teacher. He resigned his professorship in 1880 and spent a year abroad for rest and relaxation.

He had suffered for two or three years from Bright's disease, but the immediate cause of his death was an attack of pneumonia. He was not quite forty-nine years of age.

William Braithwaite, the founder of "*The Retrospect of Medicine*, died at his home in Leeds, Eng., Jan. 31, 1885, in his seventy-eighth year. He died without any suffering and from failure of the heart, symptoms of which had been apparent for about a year. In addition to a considerable practice he found time for a good deal of work and the editing of *The Retrospect* occupied much of his time. His son James Braithwaite has been associated with him for many years now in his editorial work and continues to have charge of it now.

Liquor Sodæ Chlorinatæ.—Dr. Sternberg thinks that the merits of this old disinfectant have been too much neglected in the last few years. He finds it far more efficient and reliable than a great many of the much advertised modern disinfectant compounds. —*Med. News*, Feb. 7. 1885.

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NOTES AND ITEMS.

THE ILLINOIS STATE BOARD OF HEALTH will hold its next meeting at the Grand Pacific Hotel in Chicago, on Thursday, April 16, 1885. This is the meeting at which the annual examination of candidates for certificates is held, and such candidates are notified that the examination will cover the subject of preliminary education:

THE SANITARY NEWS has been changed from a semi-monthly to a weekly. It is an ably edited and very valuable journal, dealing with all sorts of questions concerning sanitary matters.

STATE MEDICAL SOCIETY OF ARKANSAS.—On account of the meeting of the American Medical Association at New Orleans, on the 28th inst., and the large number of members of the State Medical Society who desire to attend both meetings, after consultation with the officers of the State Medical Society and the Committee of Arrangements at Fort Smith, it has been deemed advisable to change the place of meeting from Fort Smith to Little Rock. Therefore:

The Tenth Annual Session of the State Medical Society of Arkansas will be held at Little Rock, on Wednesday, Thursday and Friday, April 22, 23 and 24, commencing on Wednesday, at 10 A. M.

Each county or municipal society is entitled to one delegate for every five members and for a fraction over five.

VALUE OF A DIPLOMA.—Dr. Rauch, the Secretary of the Illinois State Board of Health in the sixth annual report calls attention to the fact "that a diploma carries with it no right of any character whatsoever; that it is merely a document bearing record of a degree conferred by a literary society or educational institution, (Webster); and that the right to practice medicine is, intrinsically

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and essentially, a statutory right, subject to whatever conditions the law-making branch of the government may see fit to impose in the interest of human health and life, as restraints upon the ignorant, incompetent, unprincipled or dishonorable.

Honest (?) Medical Colleges.—Dr. Rauch says that his experience during the last six years has shown him "that a strict adherence to their advertised requirements is the exception among colleges rather than the rule," and that in fully three fourths of them there have been irregularities of more or less gravity. He says further that many of the announcements of the medical colleges "are of such a character that if a private practitioner had been guilty of publishing a professional card making such claims, and couched in such terms, he would have been expelled from almost any medical society for a gross violation of ethics."

"The Physician Himself."—We are informed that the third edition of this little volume by Dr. D. W. Cathell has been exhausted and that a fourth edition enlarged and improved is now in press.

Bichloride of Mercury as a Disinfectant.—From the result of his experiments with mercuric chloride, Dr. Sternberg draws the following conclusions: Mercuric Chloride, in aqueous solution, in the proportion of 1: 10,000, is a reliable agent for the destruction of micrococci and bacilli in active growth not containing spores; and in the proportion of 1: 1000 it destroys the spores of bacilli, provided that the micro-organisms to be destroyed are fairly exposed to its action for a sufficient length of time. A standard solution of 1: 1000 may be safely recommended for the disinfection of bedding and clothing, which can be washed; for washing the floors and walls of infected apartments; for disinfecting the hands and instruments of surgeons and gynecologists; and as a disinfecting wash for superficial wounds or mucous surfaces. For continuous applications to wounds, etc., a solution of 1: 10,000, or less should be effective, A standard solution of 1: 500, with the same quantity of potassium permanganate, may be safely recommended for the disinfection of liquid fecal discharges, and other fluid material supposed to contain "disease germs," provided the time of exposure

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is not less than two hours, and the quantity of material to be disinfected is not in excess of that of the standard solution used.—*Med. News.* Feb. 21, 1885.

ST. LOUIS MEDICAL COLLEGE.—At the forty-third annual commencement exercises of this school at Memorial Hall, Friday evening, March 6, the degree of Doctor of Medicine was conferred upon a class of twenty young men, who had completed the three years' course of study required by the faculty as essential to graduation. The dean, Dr. J. S. B. Alleyne, made a very felicitous address to the class, as he presented each one with his diploma.

The valedictory address, on behalf of the faculty, was delivered by Dr. H. H. Mudd. Referring to man's superiority to the lower animals, by reason of the higher development of the brain, he showed the necessity of studying the mental, as well as the physical influences which affect one's patients, in order that we may give them proper attention. He noted the possibilities of mental development, and urged the responsibility of each one to make the best possible use of every opportunity afforded; and as the highest development of the brain is characterized by the faculty of speech, distinguishing man from the lower animals, he observed the obligation of carefully weighing every word uttered.

Besides the twenty graduates in medicine, there were eight gentlemen upon whom was conferred the degree of Doctor of Dental Surgery, by the Missouri Dental College, of which this is the nineteenth annual commencement.

ALCOHOL IN THE TREATMENT OF THE INSANE.—Dr. W. B. Fletcher, Superintendent of the Indiana Hospital for the Insane, and Dr. R. M. Bucke, of the London, Ont., Asylum, have entirely abandoned the use of alcohol in any form in the treatment of the insane. They believe that their patients do just as well as before, and perhaps better.—*N. Y. Med. Rec.*, March 14, '85.

AN EVENT OF INTEREST to the profession is the completion of Prof. Hyott's half century in medicine, which will be celebrated during this month by the Senate of the University of Vienna and other prominent societies.

THE ANNUAL MEETING of the District Medical Society of Central Illinois will b e held in Library Hall, Pana, Illinois, Tuesday, April 29, 1885.

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ST. LOUIS
COURIER OF MEDICINE.

VOL. XIII. MAY, 1885. NO. 5.

ORIGINAL ARTICLES.

POLLUTED DRINKING WATER IN ST. LOUIS—ITS RELATION TO DISEASE.

BY PROF. W. B. POTTER, A. M., WASHINGTON UNIVERSITY, ST. LOUIS.

[*Extract from Lecture Delivered under the Auspices of the Alpha Council of the Legion of Honor, March* 3, 1885.]

FOR a city so well supplied with good and wholesome water and with such an excellent system of sewers and drainage as we have in the city of St. Louis it would seem to be quite unnecessary to disquiet ourselves about any expected visitation of cholera, for it is well established and clearly proved by experience in the past, that there is no disease taking the form of an epidemic which is so easily controlled as cholera, where the water is above suspicion and the drainage is properly cared for. Indeed there are few cities in the world which have such admirable opportunities as St. Louis to become remarkable for healthfulness and freedom from all epidemics, but unfortunately, owing to ignorance, or indifference, or both, we are missing these opportunities.

In many parts of the city it is a common sight to see an old fashioned but honest looking pump, bearing all the marks of

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frequent use, set in the sidewalk in front of some saloon or corner grocery with bar in the rear. Is is also to be noticed that the pump is placed in as close proximity as possible to the sewer opening or, for lack of that, to the gutter, in which dish-water and filth abound and seem to constitute the proper qualifications for the position.

At such places the drayman stops on his way to work in the morning, as he returns at night, and at such times as may be

FIG. I.

convenient during the day to refresh his thirsty and it may be weary steeds, with the much needed liquid which the pump supplies. Having performed this kindly office, the grateful driver usually enters the establishment "to see a man" and transact a little business with him, leaving a nickel or dime as the case may be, for—the water his horses have had, of course.

It is evident that as the driver is thus able to water his horses by the way, and the corner grocer receives pay for the water

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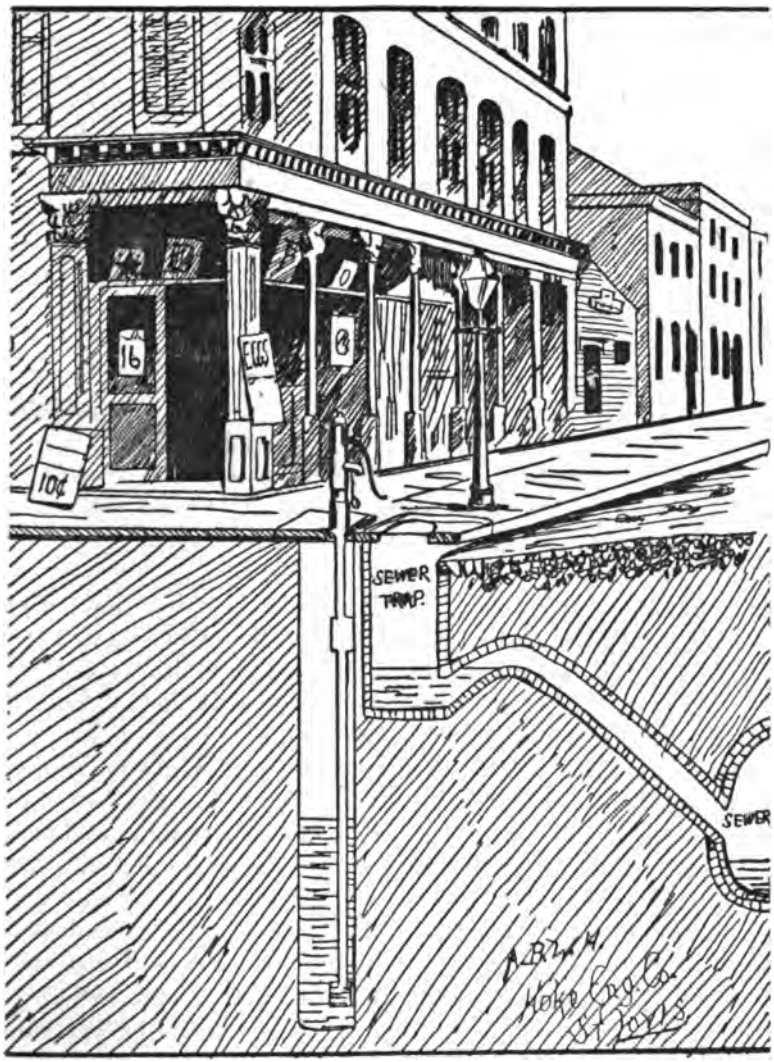

FIG. I. *a.*

used, it is to the interest of both parties that the pump should remain where it is. If this were the only office of the corner grocery pump, there could be little of which to complain. A little patient waiting near, however, will show that it is very

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frequently called upon to supply the buckets, pitchers and vessels of various kinds brought by men, women and children whose pale and sickly faces too often show that they are regular consumers of the diluted sewage supplied by the generous grocer with the city's consent.

The case represented in Fig. I. and Fig. I. *a.* is one of many hundreds that may be found in an afternoon's walk; and is only selected because it is conveniently near and very often comes in my way. It is situated on the south west corner of Eighteenth street and Franklin Avenue, and is used by a large community, especially for drinking, a cup being attached.[1]

The means by which the water of this well may become polluted is told more clearly in the drawing than any words could express. That it is already polluted is proved by the fact that a sample of water taken when the ground was frozen contained 15.29 grains of chlorine to the gallon, which is more than five times as much as is necessary to show that the sewage leads into the well.

Indeed it is impossible that it should be otherwise. The pump is placed so near the sewer opening that it would seem as if the well must be in the sewer itself, and in addition the slops and filth from the gutter and street must easily find access to the suction pipe of this unprincipled pump.

But bad as such a state of things is, it is mild in comparison with much that may be seen.

On almost any block in many parts of the city may be found in the back yards of tenements and houses where families are crowded together, an arrangement of well, privy vault and stable, which would almost seem to have been designed to supply, by means of the well, the sewer which the city had not provided for draining the other two named establishments.

That this is not a very exaggerated statement of the case may be seen from the accompanying illustrations reproduced from photographs secured for the purpose.

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1. Since the attention of the owner of this well has been directed to its condition by Prof. Potter's lecture he has removed the pump and closed the well.—[ED.

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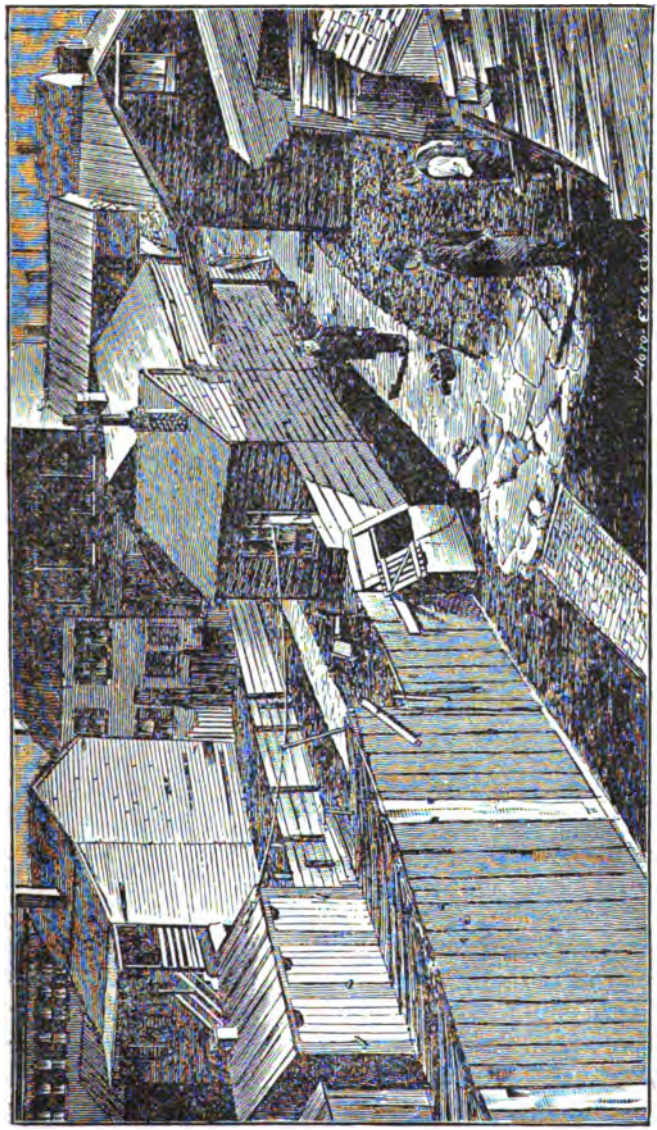

FIG. II.

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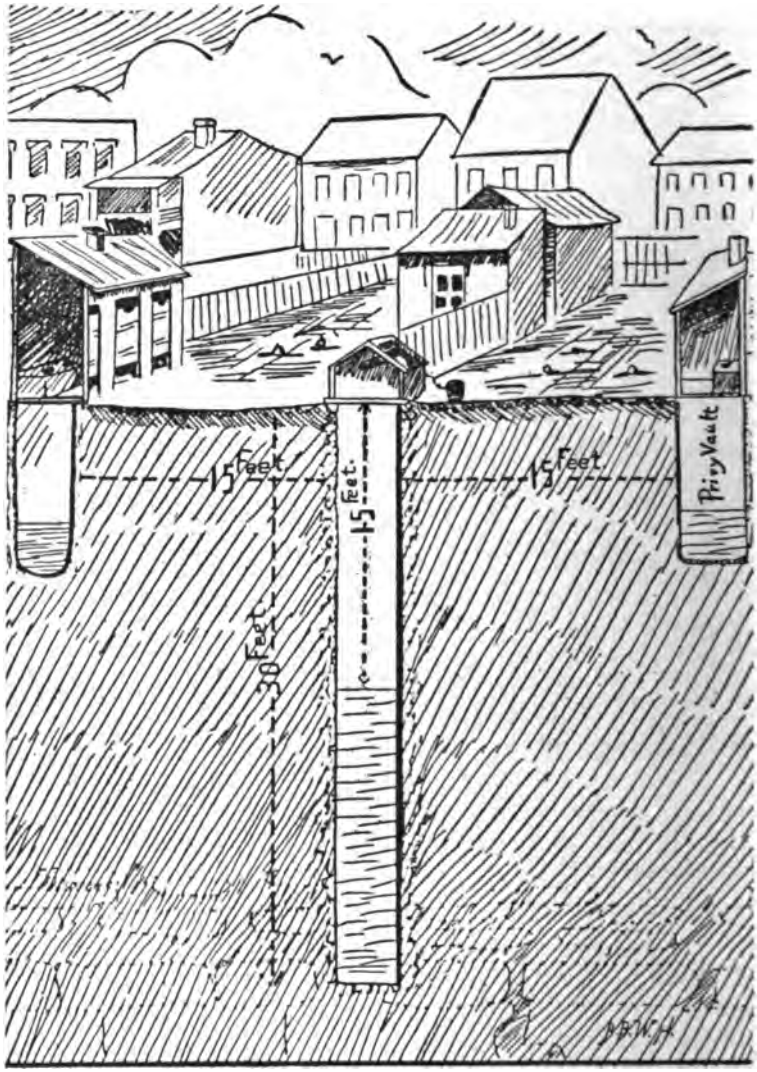

FIG. II. *a.*

Fig. II. and Fig. II. *a.* represent a case occurring at 2012 Wash street. It is only a sample of what may be seen in the rear of hundreds of houses in the neighborhood and of thousands in the city.

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In the absence of a sewer certainly no more effective plan for draining the privy vaults could be devised. That such drainage does take place is proved from a sample of the water containing 36.33 grains of chlorine to the gallon, *an amount nearly double that found in any one of twelve samples of sewage recently taken from the sewers and examined.*

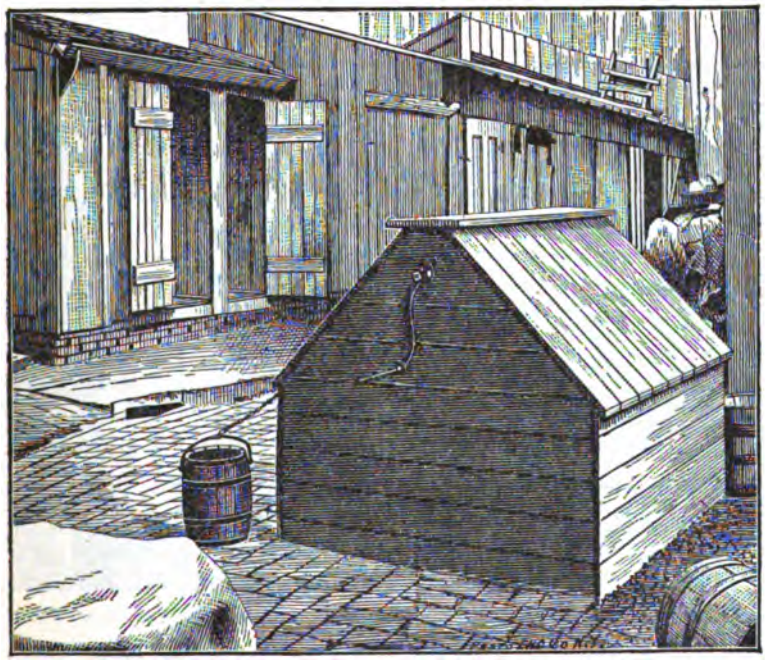

FIG. III.

Figure III. shows the interesting condition prevailing at 1628 Wash street. The well is twenty-two feet deep and the water stands at twelve feet from surface of ground. The two privies are within eighteen feet of the well. Slops and filth are thrown out upon the brick pavement and are expected to find their way to the privy vault through the opening to which the gutter leads. The 15.10 grains of chlorine to the gallon of this water show that there is easy access from the privy vault to the well.

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Figure IV. shows an interesting combination of a well with pump surrounded by a barrel filled with manure to prevent freezing, a stable ten feet from the well, a privy vault twenty-five feet away, and, just over the fence, another privy vault within six feet of the well. The water showed the effect of this combination by giving 5.25 grains of chlorine to the gallon. The ground was frozen hard at the time or doubtless the chlorine would have reached a much higher figure.

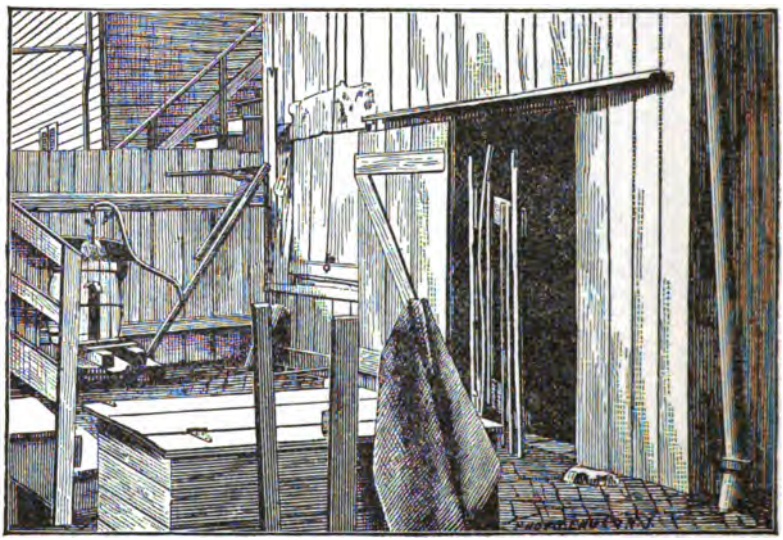

FIG. IV.

The people who use such wells as shown above think that because the waters are clear and sparkling they must be pure, and that having used the waters for many years without suffering any evil they may safely continue to use them. Nothing could be more delusive. The water is clear and sparkling because it has filtered through the ground but the poisonous filth, remains. The poison is dissolved in the water and no amount of filtering will remove it. When cholera appears the poisonous germs, discharged by those suffering from the disease, will

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readily pass with the leaking waters from the privy vaults and sewers into the neighboring wells, and those who drink the well water cannot escape the disease. And further it is a fact, as every well informed physician in St. Louis will testify, that typhoid fever, diphtheria and diarrheal affections are at all times very prevalent in those quarters of the city where well water is used. Many who drink such water may escape for a time, but their time will come when they least expect it.

Innumerable cases have been placed on record by competent observers in which these diseases have been traced to the use of water poisoned with the soakage from wells charged with sewage and excremental matters. Such contaminating of the water is not indicated by any perceptible change in the appearance of the water. The filtered sewage, clear and transparent, carries with it the germs of the diseases.

To chose an example, from the multitude which are accessible, we may take the case of an outbreak of typhoid fever in Erie county, in New York state, which occurred in 1843, consequently before the connection between typhoid fever and drinking water had become a theory. The community consisted of nine families (43 persons), and typhoid fever had not been known in the vicinity until, in the year named, a sick traveler took lodging at the tavern, and twenty-eight days thereafter died, of what was pronounced by the physicians to be typhoid fever. The disease spread, twenty-eight persons in all were attacked, and only three families escaped. These three families were the only ones which did not use the well of the tavern, two of them on account of distance and one on account of a feud between them and the inn-keeper. The latter family lived within four rods of the tavern. The physicians at that time ascribed the connection of the disease to a "contagium contained in the emanations from the body." But the people charged the family referred to with poisoning the well, so marked was the coincidence. Subsequently Dr. Flint of New York, in reviewing the case, regards it as "very probable, if not certain" that the disease was communicated by the drinking water, the source of which was so situated that it must in all probability have been contaminated by the dejections of the first patient.

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Cholera, though it does not originate from polluted water, is disseminated chiefly by the aid of wells and other impure water supplies. The transmission of the cholera germ by the use of water polluted by the dejections of cholera patients has been established in such a multitude of cases as to remove all doubt from the subject. It is only necessary to cite a few cases to show how clearly the propagation of the disease has been traced to the water supply.

At Exeter, England, in 1832, one thousand deaths occurred from cholera. A purer supply of water was then introduced from a locality two miles higher up the river above the point at which it received the sewage of the town. When the cholera again invaded the city in 1849 only forty-four cases occurred and in the cholera season of 1854 there was hardly a case.

Another very striking instance occurred in London. The famous Broad street pump supplied water in one of the most fashionable localities of the West End. During the visitation of 1848-9 this pump was the means of killing five hundred people in one week by disseminating cholera. The wealthy people of the West End went to Brompton, a fashionable summer resort about five miles up the Thames, and soon the cholera broke out among them there. The health officers soon discovered that these people had been in the habit of sending to the Broad street pump for tea water and had brought the cholera with it. A curious case was that of an old spinster who had moved to Hampstead, three miles from the pump, but who sent her maid daily for a kettle of the highly prized tea water. She and her maid were the only persons who suffered from cholera at Hampstead. It was shown by subsequent investigation that the dejections of a fatal case of cholera were thrown into a leaky drain which ran within three feet of the well.

There was a famous pump in the twelfth ward of Brooklyn, Long Island, on the corner of Van Brunt street, from which over fifty families obtained their water supply. In 1866 cholera broke out in five or six of these families, but the spread of the disease was prevented by the prompt action of the health officer, who removed the pump handle. * * *

There is still another class of water nuisances very deserving

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of mention and condemnation. I refer to the receptacles for the storage of rain water, collected from the roofs, and generally known by the name of cisterns. These are usually constructed of brick, with or without a lining of cement and are generally placed underground, either in the cellar of the house or in the adjoining kitchen yard.

The householder with one of these sources of table-water supply no doubt considers himself and family quite superior to the neighbors who content themselves with the cloudy water which the city serves. But see how great is the delusion! The filth and dirt which is so easily blown from our streets and lodged upon the roof, the excrement of birds, the dead bodies of insects and leaves from the trees, beside the smoke and foulness of a St. Louis atmosphere are washed off, to greater or less extent, into the cistern. The device, automatic or otherwise, by which the first portions of the rain are allowed to go to waste, if used, does not overcome the evil but merely lessens it. Much of the polluting matter referred to adheres to the roof so that it is only after being washed for some time that it is loosened or slowly dissolved and then runs into the cistern. This state of things goes on month after month and year after year, the waters becoming more and more fouled by the accumulating filth. The use of a filter in the cistern helps the water but little. The filth collects in the filter and the water is strained through, dissolving the organic impurities. In answer to some inquiries made recently concerning a cistern which had been in use for many years in a well appointed house in this city, I was informed by a younger member of the household that he remembered it had been cleaned out a number of years ago. He was sure of it because he had noticed that the stuff taken out was thrown on a certain grass plot, and he was afterwards particularly struck by the greater freshness and luxuriance of the grass there. Think of obtaining the fertilizer for one's grass plot from the drinking water cistern!

But there are other sources of contamination. Instances have been known where careless servants have emptied house slops from the upper stories onto the roof, thence to find their way into the cistern.

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Soakage of sewage may take place through the brick walls of the cistern, and leaks may occur. Dr. Smart, in his investigation of the water supply of Memphis, examined 529 of the 4,000 cisterns said to be in use, and he found only 163 of that number undoubtedly sound. The overflow pipe which connects with the drain is another means by which foul liquids and gases may have frequent and easy access to the water supply. People who think the city water too hard for drinking purposes often use cistern water, which has become nearly as hard by dissolving the lime from the mortar and cement of the cistern wall.

It seems inconceivable that intelligent people should expect to get pure or even respectable water from city cisterns, considering the conditions by which they are surrounded and the treatment they usually receive.

Already the question has been repeatedly asked by those concerned for the welfare of the city: Is St. Louis prepared for a visitation of the cholera? With the knowledge that there are 6,000 to 8,000 surface wells of the character shown above, and surrounding these 25,000 to 30,000 privy vaults, saturating the soil with corruption and making sewers of the wells, and that there are besides several thousand private cisterns more or less polluted, how is it possible to believe that the city is prepared to face an epidemic? May we not with reason go further and most emphatically declare that the city is in a dangerous as well as disgraceful condition? The danger, unfortunately, is not alone in the wells and cisterns and overflowing vaults; it is also to a large extent in the ignorance and apathy concerning these matters which prevail to such an alarming extent among all classes of citizens.

People who live in the better quarters of the city may consider themselves as perfectly safe and not called upon to worry about the water used by the people in other quarters. And yet with a little better knowledge of the situation they would readily appreciate the importance of taking an interest in the promotion of cleanliness among all. By way of illustration, attention may be called to the fact that from one-quarter to one-third of the milk used in all our households is water, added, not all of it in the country dairies, we may be sure, but to a large extent

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as well by the city dealers. For this water, bought under the fictitious title of milk, the citizens of St. Louis pay over half a million dollars a year, and it is a matter of the greatest importance whether this diluting fluid is derived from the public waterpipes or the filthy wells and cisterns of the city. By means even of the water used for washing out milk cans, the germs of cholera might easily be transmitted from one quarter of the city to another. It is clearly to the interest, then, as it should be the duty of every citizen, to do what he can to further the work of reform in these matters. And unless there is a reform, of the most searching and vigorous kind too, the city will merit the reproaches of all enlightened communities, and we shall not be able to escape the charge of responsibility for the suffering and death that will surely come to many a household if cholera appears in St. Louis during the approaching summer.

For the use of Fignres I. *a.* and II. *a.* we are indebted to the Citizen's Sanitary Aid Association.—[ED.

PREVALENCE OF DEAFNESS EXPLAINED BY THE ANATOMY OF THE EAR.

BY CHARLES A. TODD, M. D.

[*From a Lecture Delivered before the St. Louis Academy of Science, March*, 1882.]

ONE of the most celebrated anatomists of the day in his introduction to a description of the human ear, begins with the sentence; "The sense of hearing being necessary to social intercourse and not easily admitting of a substitute, stands in even a more intimate relation to the intellectual life and spiritual education of mankind than the sense of vision, with its recognition of form and color." In another place he repeats this opinion more emphatically even: "Hearing concerns much more closely the mental development of man than does the sense of sight. The position in society of the deaf consequently is more unfortunate than that of the blind. The

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sway of musical sounds over the soul, the power of the spoken word giving form and expression to thought, this is felt by every one open to the influences that make the cultivated man. When Napoleon, just before his fall, heard for the last time the vesper bells of Brienne, the heart of the king of battles melted into tears." Such is the estimate of the importance of the function of the ear by the late professor of anatomy in the University of Vienna, where is the chief school of medicine in the world.

Unfortunately, so little is known of the nature of the ear, even by well educated people, that its diseases are commonly neglected, and in consequence, deafness is prevalent to a degree that few suspect. Does a flying mote touch the eye-ball, we instantly seek relief. We spare no trouble nor expense to remedy the unfortunate affections of the organ of sight. The ear, on the contrary, being, as to its sensitive parts, hidden from direct observation, may be subjected to the gravest disorders unaccompanied with pain, and not arouse alarm. Its anatomical relations are such that it is *most frequently* secondarily involved in disease; inflammation creeps upon it from distant parts and enters into possession before we are conscious of the mischief effected. This is the usual history in the vast majority of cases; the ear is seriously and *permanently* damaged before the victim discovers his crippled condition. The delicate parts have already undergone such profound alteration that medicine can do but little in restoration. The *vis medicatrix naturæ* turns away in despair and leaves the sufferer to experience a gradual but sure loss of a most precious sense.

Science has not yet invented for the failing hearing such aids as prolong the usefulness of sight; the anatomical conditions are altogether dissimilar. Huxley has said: "In nature's university those who won't learn are plucked; and then you can't come up again. Nature's pluck means extermination. Ignorance is visited as sharply as wilful disobedience. Nature's discipline is not even a word and a blow, and the blow first; but the blow without the word. It is left to you to find out why your ears are boxed." Unluckily, in this bringing up by hand, a boxed ear generally means a ruined ear, and our experience can

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be of benefit to others only, an altruistic aspect of the case, but very feebly consolatory.

In order to understand the arrangements of the different parts of the ear, we must bear in mind that it is naturally divided into three parts, each in its way completely distinct from the others, though united in a common function. Hence, each of the three sections may be subject to pathological change independently, two or all three being involved together, as a rule, only in the course of excessive disease, or as the result of a severe accident.

These three divisions are conveniently called from their relative positions, the external, middle, and internal ear. The external ear, or external meatus by reason of the length, narrowness and crookedness of its canal, is liable to peculiar disorders. Foreign bodies enter into the deeper portion and vain attempts at extraction injure the tympanic membrane by their pressure. The patient or friends naturally try to extract the bug, pebble, or bean with improvised probes, and usually succeed in making a bad surgical case of a simple affair; a few injections of warm water with a properly held syringe will often sweep out the substance without injury. As the canal is somewhat hour-glass shaped, cerumen may gradually accumulate, being pressed by the finger beyond the constriction, and there augmenting cause deafness. Such cases are apt to be overlooked. Water, also, after entering the ear, may be retained in this pocket and give rise to inflammation, a not uncommon accident with boys in time of summer bathing. Amphibious mammals are provided with valvular auricles which close the canal when the animals dive; the alligator exhibits a perfect lid to the external ear. Clearly, the ear should be guarded against entrance of water. The reason why aural trouble does not more frequently attend ducking the head is that the air contained in the narrow canal, guarded as it is with bristly hair and oily cerumen, suffices to keep out the water during a sudden immersion. This will not prevent drops from entering, nor a gradual inflow if the head be placed so as to allow it.

The middle ear, as every experienced physician knows, is the grand site of aural disease, connected as it is with the frequently in-

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flamed pharynx through the Eustachian tube. The greater part of aural mischief originates in the naso-pharynx or vault of the pharynx, opposite the posterior nares; hence, the insidiousness of the approach of serious deafness, the patient not applying for relief until such extensive and permanent organic change has taken place that restoration is out of the question. Here there is a field which medical men should never neglect. When complaint is made of frequent "colds in the head," or habitual fulness, or "irritation" of the fauces, the naso-pharynx should be at once examined and the condition of the Eustachian tubes tested either by the catheter, which is surest, or by the air douche with the inflation balloon. Besides catarrhal affections which secondarily involve the ear, other causes of disturbance are hypertrophied tonsils, smoking and chewing tobacco, spirit drinking, dust; in fact, whatever produces congestion of the mucous membrane of the fauces and nose. Mackenzie, of London, in his well known text-book on diseases of the nose and throat, specially dwells on the dryness and dustiness of the atmosphere in the United States as a cause of catarrh of the naso-pharynx. It is a fact that change of climate is usually the surest, and possibly in most cases of naso-pharyngeal catarrh not due to self abuse, the only radical cure. Reflex catarrh is a form that naturally should be discriminated.

Women suffering from disease of their productive organs are apt to be victims of reflex catarrh; also dyspeptics. It has been noted that the menstrual period may affect the aural condition decidedly by direct reflex action.

The internal ear, lodged as it is in the brittle petrous bone, is subject to disastrous injury in fracture of the base of the skull, involving that bone. I have such a case now under treatment, in which most unexpectedly the hearing after several months has been partly restored, though after the hurt there was total deafness. In the last volume of the Transactions of the Missouri State Medical Association, in an article upon "Deafness after Parotitis," there is pointed out the probable connection between lesion of the labyrinth and parotitis and meningitis, the inflammation invading that region by following the track of vessel and nerves.

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REMARKS ON THE PROGRESS OF BACTERIOLOGY

BY H. H. D. MOORMAN, M. D., DALTON, MO.

[*Read before the Moberly District Medical Society.*]

PRIOR to the researches of Pasteur little attention was given to this now very important department of Medicine. M. Pasteur's experiments have been of more practical value to the public than to the medical profession. It is true that his experiments on Bacillus Anthrax are instructive, and have been useful to other observers, principally by showing the fallacies of his method. He has made some experiments of considerable interest to the profession, for instance he has proven that bacteria are the cause and not the effect of decomposition. Various other observers have in times past added to our knowledge of this subject, but Koch was the first one to make this subject of general interest to the members of the medical profession.

His discoveries are the most important pathogenetic ones yet made. His results have not been found faulty by any respectable mycologist. In order that a man's opinion should have any weight on this subject he should be familiar with the methods employed in mycological investigation, and should also have had special training and considerable experience, not experience as a gynecologist, surgeon or medical practitioner, but as microscopist.

Critical articles, so commonly published of late, sometimes by good physicians, upon the experiments of Koch and others, are of absolutely no practical or scientific value, because their authors are entirely ignorant of even the rudimentary principles of mycology.

Their articles are prepared without any special study of the subject whatever, and I can recall instances where Koch and his discoveries were ridiculed by men who would not recognize a blood corpuscle under the microscope. In a recent number of the ST. LOUIS COURIER OF MEDICINE an article is published on Fevers by one whose own assertions in this article shows that he has no knowledge whatever of bacteriology, yet he attempts to

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ridicule men, who have given the world evidences of their professional attainments, which will last for ever. Numerous instances like the above could be quoted, but time will not allow it. It is true that we should not unreservedly accept every thing asserted by even distinguished microscopists, but we should leave the refutation of their errors in the hands of abler investigators than the general practitioner. It is true, we can derive a great deal of amusement and a certain amount of instruction from sophistical arguments upon this subject, but it is almost impossible for any knowledge to be added to the subject by men who have never taken the trouble or had time to investigate it. It is not my object in writing this paper to discuss the teaching in mycology, for I am not sufficiently familiar with the subject, but I intended to offer this paper in lieu of a report upon the progress made in this branch. Many important discoveries have been left out, for the reason that I could not find detailed accounts of them in my limited library.

I will now proceed to consider the history and etiological relations of certain bacteria, and shall commence with the one most definitely known, viz:

BACILLUS ANTHRACIS.

This bacillus as Dr. Belfield remarks, is the cross to which all bacteriologists cling. Its etiological relations have been clearly defined and proven by numerous observers, among whom may be mentioned Pasteur, Klebs and Koch, most clearly proven by the last named observer. This bacillus multiplies by spore formation; these spores are very tenacious of life, producing other bacilli after immersion in strong alcohol for many months.

The bacillus anthracis may not be considered very interesting, but when we reflect that from 1867 to 1870 in one Russian district 56,000 animals and 528 people died from Anthrax, and during an outbreak in the West India Islands in 1770, 15,000 people died from eating beef containing this bacillus, the general importance of the subject is at once apparent. The bacillus anthracis was first seen by Davaine in 1849, but its causative influence and life's history has only been demonstrated in the last three or four years. There is no fact in the science and art of medicine more certain than the existence and pathogenetic in-

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fluence of this parasite. Pure cultures of this bacillus have been inoculated nearly 50,000 times, and if a sufficient amount of the virus be used it will cause malignant pustule invariably,

I will next consider the

BACILLUS TUBERCULOSIS.

This bacillus is rod shaped and its length is about $\frac{1}{4000}$ of an inch. It is known by its reaction to several aniline dyes. The best method of preparing a specimen of sputum for examination is as follows: Transfer to a cover glass one of the nummular masses in the sputum and spread it all over the glass. Allow it to dry for a few minutes, then pass rapidly three or four times through a spirit flame to fix the albuminoid matter. Then let the glass float on top of the previously prepared staining fluid for twenty-four hours. Prepare staining fluid as follows: To about a gill of water, add ℥ss. of aniline oil; agitate and filter; to this add an alcoholic solution of diamond fuchsine. After the cover glass has been on the staining fluid for twenty-four hours, it is removed and rapidly passed through a strong solution of nitric acid and immediately afterwards passed through water, it is then placed upon a drop of glycerine on a glass slide and is ready for examination. This is the only bacterium which will retain its coloring matter after the action of strong nitric acid, and by this property it is distinguished from all others. This bacillus was, as you all know, discovered by Koch. Pure cultures of it have been inoculated a great number of times, and it has never yet failed to produce phthisis.

It is regarded as the cause of all forms of tubercular disease, of scrofula, fungous joint inflammations and of the pearl disease of cattle, of Niemeyer's so-called cheesy pneumonia and chronic pneumonic consolidation. We must accept the above statements as facts until some other observer with all the advantages of Koch and equally as proficient as a mycologist carefully repeats his experiments and pronounces them false. This has not been done. All observations up to date confirm Koch's original assertion. No one has ever found and proven an error in Koch's investigations.

Schmidt of New Orleans, a distinguished pathologist, but not

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necessarily a mycologist, announced to his delighted admirers, soon after Koch's publication, that he had annihilated Koch's bacillus, that it was only a fat crystal. At the time he had never seen a tubercle bacillus. Dr. Belfield of Chicago sent him a carefully prepared specimen, and he retracted, said the tubercle bacillus in no manner resembled fat crystals and attributed his ridiculous error to bad aniline oil. In like manner perished the man who announced the fibrin theory.

Formad of Philadelphia, who made the astounding discovery (which, by the way had been made a number of years previous by numerous other observers) that any irritating substance injected into an animal would produce tuberculosis, was likewise ridiculed, and his arguments refuted. Dr. Geo. Sternberg, U. S. A., in the January number of *American Journal of Medical Sciences* details experiments which he conducted in Formad's presence, but took the precaution to experiment outside a laboratory, and away from any tuberculous infecting material. These experiments prove conclusively that true tuberculosis cannot be produced by injecting irritating substances into any part of the body. Cohnheim's and Fraenckle's experiments made eight or nine years ago at the Berlin Pathological Institute give the same results as Dr. Sternberg. The bacillus tuberculosis is not always found in the sputum, but when found the diagnosis of phthisis is established beyond a doubt. This bacillus has never been found in any sputum not obtained from tuberculous subjects. It is not found in every tubercle. Koch explains this by supposing that in these tubercles the bacilli are dead, and consequently will not react to the staining fluid, and for this reason cannot be seen. They nor any other bacilli have ever been found in perfectly healthy tissues. This fact has been too well established for disputation. The fact that this bacillus is the specific cause of phthisis can be reconciled with the known influence of heredity to the production of this disease, only by reasonable supposition. It would be as reasonable to suppose that a person whose father or grandfather had phthisis would inherit a peculiar lung structure, more susceptible than ordinary to the pernicious influence of these bacilli, as it would be to suppose that we inherit peculiarity of mind, form or features from

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our progenitors. We can reasonably suppose that some lungs by some unknown peculiarity of structure, inherited or not, are less able to destroy and resist the invasion of the bacillus tuberculosis than others. If we all had this deficient lung structure I have no doubt that we would all have phthisis, but fortunately all of our forefathers did not have phthisis. There is no doubt that we daily inhale these bacilli, but if we are healthy we are enabled to resist and throw them off. Sometimes though we see individuals, whose family history is absolutely good, overpowered by this dread disease. These cases can be explained as follows: These individuals have, at some time or other, been compelled to inhale immense numbers of these bacilli. For a time they probablv resist their influence, but a time comes when the bronchial mucous membrane, overcome by repeated attacks of an enemy constantly receiving re-enforcements, gives in, becomes slightly inflamed, and thus the continuity and healthy action of the mucous membrane being destroyed the opposition to their entrance into the pulmonary tissue is over come, and the first stage of phthisis is instituted. The disease contantly increases according to the rapidity of development and number of the bacilli, though the number of bacilli found in the sputum cannot be used with any certainty in prognosis. When the pathogenetic qualities of this parasite are generally admitted, the therapeutics of phthisis will be revolutionized, and it is to be hoped that some drug will be found which will act specificially in phthisis, and this hope is not entirely unreasonable. The use of pneumatic respiration does good in some cases of phthisis, and has probably in some cases effected cures. Some patients are probably cured by life out doors in a mountainous climate. The inhalation of the solution of biniodide or bichloride of mercury has proven to be curative to a certain extent. During the past summer I used the calcium sulphide in a case of incipient phthisis and with apparently some benefit. In acute miliary tuberculosis I would recommend for theoretical reasons the internal use of permanganate of potassium in pill form. The petroleum mass could be combined with it to advantage. I think by this means we would increase the oxygen in the blood, and this opinion is corroborated by Prof.

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Bartholow, in a recent article describing his method of using this drug. He does not mention it in connection with phthisis. Pasteur and later Law have proven that in the case of some very highly infectious bacteria their malignancy and character may be changed by free exposure to oxygen. Thus if the bacillus of chicken cholera is exposed to oxygen for some time it will not produce chicken cholera when inoculated, but prove harmless. Another ground for believing that a lack of oxygen is favorable to the rapid reproduction of these organisms is the fact that phthisis is nearly always first developed in one or the other of the apices of the lungs. It is generally admitted that in ordinary respiration the air cells of the apex are not as fully expanded with air as are those of the base of the lung or intermediate portion and that in expiration the amount of residual air left is greater to the cubic inch than in the other portions of the lung and the proportion of CO_2. to O. is relatively greater. Hence the apices of the lung form a fitting soil for the rapid development of the bacillus tuberculosis, and for this reason as a prophylactic measure active exercise and free expansion of lung can be highly recommended. In incipient cases the injection of a strong solution of nitrate of silver or iodine directly into the solidified apex have been highly recommended of late.

OTHER BACILLI.

The bacilli malariæ of Klebs and Tommasi-Crudeli have not yet stood the test of criticism. Dr. Sternberg repeated Klebs' experiments at New Orleans without finding a bacillus similar to that of Klebs or one that would produce symptoms of either remittent or intermittent fever when inoculated.

The bacillus lepræ, is probably the cause of leprosy, it is found constantly associated with the disease, but no conclusive experiments can be made in connection with it because m n is the only animal that is susceptible to leprosy.

The bacillus of typhoid fever has not yet been proven to exist nor has any parasite been found to produce pneumonia. I shall not discuss the connection of the bacterium termo with pyem a although this probably has some influence in producing this disease. I shall next consider the

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COMMA BACILLUS.

This bacillus was discovered by Koch six or eight months ago, and its pathogenetic influence was announced about two months since. And Koch's assertions are backed up by experiments which seem to defy refutation: he has inoculated animals with pure cultures repeatedly and always with the effect of producing symptoms similar to cholera, viz., an exhausting diarrhea, in some instances rice water discharges and in many cases collapse and death followed.

The comma bacillus is easily recognized by simply staining with fuchsine.

Koch found this bacillus in the drinking water in immense quantities in districts where cholera was prevailing; he also found it in the evacuations of patients affected with cholera. He has proven that the bacillus found in cholera nostras is morphologically and experimentally distinct from his cholera bacillus. And most important of all, he has proven that this bacillus can be destroyed by drying.

Since writing the above I have seen a synopsis of some results obtained by Dr. Klein of London. These experiments of Klein, if proven (which I doubt), will indeed demolish Koch and his theories. Then with some grace the Chicago editor can say: "Sic transit bacteria," but until Klein's full report is published and proven to be beyond criticism, we shall have to rely upon the assertions and experiments of a man who seldom makes a mistake—I allude to Koch. Some doubt should be attached to the accuracy of Klein's observations on account of his previous opinion of the comma bacilli. It is a well known fact that he ridiculed the idea of there being any properties in this bacillus which could produce cholera and showed his faith and prejudice at the same time by swallowing a test tube filled with these bacteria. He went to India, not to investigate the subject fairly and with justice to both sides, but to show that Dr. Klein was right and Dr. Koch wrong. I shall next consider the

MICROCOCUS OF GONORRHEA.

In 1879 Neisser first announced to the profession that he had found constantly associated with gonorrheal discharges,

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whether from the urethra or vagina, a micrococcus not found in other pus and distinguished by its form and mode of reproduction.

He believed it to be the specific cause of gonorrhea, and most other observers agreed with him. Bokai of Pesth inoculated six students with the pure cultures, and produced typical clap in three of them—though Dr. Belfield says: As he did not keep these students in solitary confinement, his experiments are not as conclusive as they might have been. Dr. Sternberg is the only reliable observer who disagrees with Neisser. Dr. S. claims this bacteria is widely distributed and is the same one proven by Pasteur to produce decomposition of urea. I shall lastly consider the

SPIRILLUM OBERMEIERI

This was discovered by Obermeir as its name indicates, in 1773, and all observers since have found it constantly in the blood of patients sufferring from relapsing fever. It disappears during the intermission, but reappears upon the occurrence of the next relapse.

Prof. A. Flint says in his work on Practice, that the etiological connection of this spirillum with relapsing fever cannot be doubted, though no evidence of this as yet exists except constant association of the germ with the disease. We have every reason to believe that numerous other diseases, such as pyemia, septicemia, diphtheria, all of the eruptive fevers, syphilis and many others, are caused by specific living organisms. And in conclusion allow me to quote a distinguished mycologist on this subject. He says: The men who assert and believe in the pathogenetic influence of the trichina spiralis in the production of trichinosis, contemptuously reject the idea that leprosy, tuberculosis, relapsing fever and pyemia are produced by bacteria; although the evidence is the same in both cases, viz., the constant association of the parasite with the disease.

I have referred to the *American Journal of Medical Sciences*, *Medical Record*, Philadelphia *Medical News*, St. Louis COURIER OF MEDICINE, *American Journal of Obstetrics*, "Cartwright Lectures," Belfield, "Flint's Practice," "Coate's Pathology," and a few other works which I cannot recall.

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CASES FROM PRACTICE.

PARTURITION WITH PROLAPSED UTERUS.

BY E. A. WAGGENER, M. D., CARROLTON, MO.

I was called at 7 P. M., Feb. 23, 1883, to see a German lady in labor with her second child. She was 29 years old, of scrofulous habit and small stature. She had been married seven years. Health had been poor for the past three years. She lives in a very malarious locality. Last confinement five years prior to this. I found pains regular and expulsive in character. An immense tumor presented in front of vulval orifice, which proved to be the bladder. I introduced catheter and drew off over a quart of urine. The tumor having disappeared the os was *seen* presenting at the vulva and dilated about three fourths of an inch with membrane protruding. The uterus descended more or less with each succeeding pain. Within three quarters of an hour the urine had reaccumulated to the extent of a pint or more, thus necessitating the use of the catheter a second time. The bladder was entirely without the vulva, the catheter entering the meatus above and passing down to fundus, and this with the prolapsed vaginal walls constituted an immense mass seriously, as I thought, complicating the labor.

When the os had dilated to the size of half a dollar, I ruptured the membranes. The crown and os by this time were projecting considerably beyond the vulva. The position was left-occipito-pubic. With each pain the uterus with contents would descend a little lower, until it seemed that all would be extruded together. As soon as the os had dilated sufficiently, I introduced the short forceps, and while I made gentle but firm traction with my right hand at each expulsive effort, I used my left in stripping the os back over the head, which, with the aid of an assistant, I finally succeeded in doing.

The child was a seven and a half pound boy and lives to-day, the only child I ever saw get into the world before being born.

Immediately after delivery the uterus seemed almost entirely without the vulval orifice, and I had an opportunity of seeing it contract and expel the placenta. The uterus and vaginal walls were washed off with warm water and returned to their wonted habitations and retained there by a tampon of cotton, besmeared with car-

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bolized vaseline. Involution was rapid and complete. Washings and tampons were left off on the eighth day.

Prolapse of bladder was first noticed about the beginning of the sixth month of pregnancy and persisted, becoming more marked until term. It was with the greatest difficulty that micturition was accomplished in the last weeks of gestation; and it was also extremely inconvenient, inasmuch as the stream was vertical instead of taking the usual direction. So stated the patient. Without forceps I verily believe I would have had a case of complete extrusion with inversion of uterus.

HEAT AS A DISINFECTANT.—Dr. Geo. H. Rohé, of the Committee on Disinfectants of the American Public Health Association, in the preliminary report discusses the hitherto published communications on the effect of heat as a disinfectant. He endorses the conclusions presented by Koch and Wolffhügel as follows:

1. A temperature of 100° C. (213° F. dry heat) maintained for an hour and a half will destroy bacteria which do not contain spores.

2. Spores of mould fungi require for their destruction in hot air a temperature of 110°—115° C. (230°—239° F.) maintained for one hour and a half.

3. Bacillus spores require for their destruction in hot air a temperature of 140° C. (284° F.) maintained for three hours.

4. In dry air the heat penetrates objects so slowly that small packages, such as a pillow or small bundle of clothing, are not disinfected after an exposure of three to four hours, to a temperature of 150° C. (284° F.)

5. Exposure to a temperature of 140° C. (284° F.) in dry air for a period of three hours injures most objects requiring disinfection (clothing, bedding, etc.) to a greater or less degree.

Dr. Geo. M. Sternberg finds as the result of his experiments with moist heat that the temperature of boiling water will quickly destroy all micro-organisms of the class to which known disease germs belong, in the absence of spores.

Steam at a temperature of 110° C. (230° F.) maintained for one or two minutes, or of 105° C. (221° F.) maintained for five minutes, will infallibly destroy the spores of bacilli, which constitute the most difficult test of disinfecting power known.—*Medical News*, March 14, 1885.

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EDITORIAL.

THE STATE MEDICAL ASSOCIATION—PROPOSED AMENDMENTS RELATIVE TO MEMBERSHIP.

A great need in Missouri, one which has long been obvious to all having the interests of the profession at heart, is that the state should be thoroughly organized. All reputable physicians in its territory should be enrolled in local societies, and, as a matter of course, every county at least should have its local organization; or, when by reason of scanty population this is not practicable, there should be district societies meeting at such times and places as will suit the majority. These societies, by electing delegates to the annual state meeting, will constitute the State Association a truly representative body, one that shall express faithfully the sentiment of the profession and be thereby enabled to legislate satisfactorily to all.

There will be presented at the meeting in St. Joseph, 1885, for its final action, a series of amendments relative to membership which were laid before the Association last year by the Committee on Amendments. The committee consisted of Drs. Tefft, Hanna and Trader, gentlemen whose activity and deep interest in the welfare of the Association is sufficiently well-known. The usual attendance upon the Association meetings has been largely informal, and therefore doubtfully representative at times. While this has in no wise detracted from their interest, evidently it must have done so from the force of measures adopted affecting the general welfare. The lines should be drawn more firmly, when the annual assembly shall assume a degree of dignity and importance that it can not hope for in its present shape. Members who officially represent a

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local constituency feel much more responsibility than the member "at large," and in addition is much more likely to take a vital interest in the business of the session and carry the sentiment of the ruling body back to the home society.

It is to be hoped that the amendments offered by such a competent committee, and so expressive of a great need in the Association, will be passed with a unanimous sense of their great value.

THE CAUSE OF INCREASED SECRETION OF URINE WITH CONTRACTED KIDNEY.

Hypertrophy of the heart, which may be found accompanying the contracted kidney, has been naturally explained by the supposition that increased cardiac energy is required to force the blood in sufficient volume through the diminished renal circulation. Prof. Rossbach of Jena (*Berlin. Klin. Wochenschrift*, No. 3, 1885)thinks the phenomenon of hypertrophy does not admit of this simple explanation, since in a series of experiments with the use of nitroglycerine, which notably diminished the blood pressure, he found that not only no disadvantage resulted in chronic nephritis (stage of contracted kidney), but positive benefit. Even when the remedy is given hourly, not only is the amount of urine increased but also there is a marked improvement of the general condition, and of a series of severe symptoms on the part of the eye and chest—retinitis, asthma. Nitro-glycerine causes temporary headache, but the system becomes accustomed to the drug in the course of a few days.

From these observations the professor concludes that the augmented urinary secretion in case of contracted kidney depends upon other causes than the high blood pressure: possibly it is due to more rapid transudation in the renal capillaries. Also, the high blood pressure probably is in part responsible for the severe symptoms of contracted kidney, retinitis, asthma, etc. Finally, nitroglycerine is an excellent drug in such cases, as it prolongs life and relieves distressing symptoms.

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PLAIN TALK TO WOMEN.

A remarkable and admirable instance of the tendency of the day to ignore prejudice and prove the justice of established ways of looking at things, is a book just published, entitled, "Eve's Daughter or Common Sense for Maid, Wife and Mother;" it is by a well-known authoress.

The writer boldly takes up the problem of female existence from birth to old age, turns it to the light on every side, and in a manner at once thorough and characterized by tact and true delicacy, discusses those physical peculiarities of the sex that ever have been sources of perplexity and of frequent mistakes, mistakes that often are punished by a lifetime of misery.

Such a book the physician who believes more in the possibility of prevention than of cure would wish to see in the hands of all his female clients.

Such text-books on physiology and practice as cover the ground relative to the essential nature of woman and reproduction in general, require for their profitable reading extensive acquaintance with other fundamental branches of medical science; this work excerpts all of first importance to health and intelligent understanding of the great function of maternity, including the management of the menses, care of the health during pregnancy and lactation, the care of infants by the mother. The author closes with a searching chapter upon the subject of wilful unfertility.

The whole treatise, it should be repeated, is not presented as a mere medical book, but in the form of advice and admonition from an intelligent, well-informed woman to her sisters; it is to be found on the desk of our best public libraries with other latest publications for general reading.

The author adopts this maxim in guiding her pen, "knowledge never yet destroyed delicacy; ignorance does, and much else—health, life and character." This vigorous and just language is used in reference to parental neglect of duty in respect to prepar-

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ing the child and the developing woman for the natural physical changes and the full female function: "Servants and schoolmates have initiated her into the mysteries of her, as yet, undeveloped being, and by their *manner* of doing it, made a *foul secret* of that which is, in truth, her dower. The mother has been recreant in her trust, through false delicacy, or cowardice."

The mischievous superstitions of the vulgar monthly nurse, the physiological necessity of mothers' nursing the infant, its proper training to regular habits in feeding and sleeping, diet during lactation—all these momentous questions are answered, and the physician will say, Amen.

How much misery to mother, child and succeeding generations will be spared when intelligent women shall be properly informed on matters to be ignorant of which to-day should be a scandal and disgrace!

WASHING OUT THE STOMACH TO RELIEVE ILEUS.

Attention has been called in the last issue of the COURIER to the good results of stomach irrigation in cases of dyspepsia. The same operation has been found to be efficient in relieving ileus. Senator stated before the Berlin Medical Society that he had had like success with Kussmaul in treatment of ileus with the stomach washing; three cases in his practice had been relieved. One occurred in a man aged 22 who entered the Augusta hospital after suffering eight days from abdominal pain below the navel, and unyielding constipation. There had been for six months occasional constipation; that, however, yielded to mild remedies. On his entrance into the hospital his condition was one of marked depression; abdomen tympanitic and hard,much hiccough,at short intervals vomiting of non-fecal masses. In spite of treatment he continued to sink, and laparotomy seemed inevitable, but it was thought best to-

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try first washing out of the stomach,as recommended by Kussmaul. In thirteen days there had been no spontaneous evacuation of the bowels. The patient had become so apathetic as not to make any attempt at swallowing. The siphon tube was introduced and independent of the irrigating liquid poured into the stomach (warm water?) over two pints of feculent matter, together with much mucus and gas, were evacuated. Hiccough and vomiting ceased at once, and the patient was immensely better. He was given stimulants and slept quietly most of the night. The next morning the washing was repeated; about one pint of feculent matter escaped, also considerable mucus. The same morning the first spontaneous stool appeared; it was abundant and afforded great relief. Patient demanded food, which was retained. In the evening a third washing, and shortly afterward, two hours, again spontaneous liquid stool, the following morning a fourth washing, the escaping liquid almost clear with but little mucus. The patient was greatly improved. After a fluctuating course a final obstruction of the bowel set in that defied the treatment, which was not surprising, as at the post-mortem chronic tubercular peritonitis was found; a firm adhesion bound the lower part of the ileum with the cecum. The lungs were free from tubercular lesion.

The second case was of a woman with carcinoma of the bowel. The irrigation gave relief, though, naturally, it could be but temporary.

The third case was that of a type-setter affected with lead poisoning. He had not been able to retain food for five days; also had had no stool. At this time there was almost constant hiccough, and occasional vomiting, of yellowish non-fecal matter. With the siphon and washing much gas, mucus, and about one pint of yellowish liquid was evacuated. The nausea, vomiting, and hiccough ceased at once. Three washings were administered at intervals of twenty-four hours, with constant improvement. After the second spontaneous evacuation of the bowels took place.

Altogether, with these three cases, seven are reported in Berlin illustrating the favorable action of this procedure.

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It is easy to understand that the siphoning while washing out the over-loaded stomach of irritating matters, relieves the reflex nausea, vomiting, and hiccough. But not only is the stomach thus cleansed and emptied, but the intestine is relieved as well, since it is thought that in ileus there is an insufficiency so to speak of the pylorus. As to the curative action in removing the obstruction, Kussmaul gives the following explanation: (1) Emptying the stomach and intestine makes more room in the abdomen. (2) Thereby the peristalsis above the obstruction is made quieter and more orderly. (3) These conditions favor a restoration of normal position of the gut in case of invagination, abrupt bend, etc. This interesting subject may be found in full in the *Berlin K. Wochenschrift.* No. 5, 1885.

EXTIRPATION OF A FIBRO-SARCOMA OF THE URINARY BLADDER.—EXCISION OF MOST OF THE VISCUS.

The publication by Thompson of London of a work on "Tumors of the Bladder," gives a summary of operative procedure in this region. Thompson prefers the perineal incision for extirpation, in twenty cases only once having had recourse to epicystotomy. Sonnenburg described before the Berlin Medical Society (*Berlin. K. Wochenschrift*, Dec. 29, 1884,) a case of fibro-sarcoma of the anterior vesical wall removed by the supra-pubic operation. The growth was diagnosed to be of the size of a thaler and it was hoped to remove it without injury to the peritoneum. The patient was a woman aged 60 years, but in a fairly vigorous condition notwithstanding her sufferings from pain and loss of blood. Sonnenburg expected to cut out the growth with supporting tissues, and to close the vesical wound with suture. As a preparation, a large rubber bag was introduced into the rectum and filled with water to press for-

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ward the bladder and protect the peritoneum. The growth, however, proved more extensive than had been supposed and involved a large part of the bladder, so that the whole organ was in the end cut out piecemeal, only the trigonum and bit of bladder, with the orifices of the ureters, being left.

The peritoneum naturally was wounded in this extensive incision. The bladder could not be drawn out of the wound, so the cutting with knife and scissors was effected through guidance of the fingers only. The peritoneum was stitched and gave no subsequent trouble. The pelvic cavity was drained both through the abdominal wound and the urethra. The urine came away on the second day; it remained of good condition. The wound granulated finely, and at date, three weeks after operation, the patient was doing well. Sonnenburg thinks that a bladder cavity may be obtained, so that with the preservation of the urethra and its sphincter the urine will not dribble away; at the worst, a fistula may persist above the symphysis.

SURGICAL DISSEMINATION OF CANCER.

In a paper read before the New York Surgical Society, February 8, 1885 (*New York Medical Journal* February 28 1885), Dr. A. G. Gerster takes under consideration a subject to which no reference is made in the text-books on surgery, viz., the influence exerted by manipulations practised in examing or operating for the removal of malignant growths, to produce dissemination of the elements of the growth through other parts of the body and a consequent more rapid involvement of the general system and an earlier fatal termination.

His attention having been directed to the subject by observing several cases in which rapid dissemination of cancer followed operative procedure, he has taken the pains to study the subject carefully.

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Observing the powerful effect produced by massage upon swellings following sprains in promoting the absorption of effused materials, and noting the amount of force frequently employed by surgeons in the examination of tumors, especially when the patient is anesthetized, he suggests that such manipulations might readily effect the dissemination into different parts of the system of cancerous elements. The same result, he thinks, might follow the manipulations involved in the removal of such a growth.

That various forms of cancer vary in the intensity of their infectiousness has long been observed by clinicians as well as the fact that this variation is proportioned to the succulency of the growth, an expression of which is seen in the greater or less proportion of *cancer juice* produced by scraping the cut surface with a scalpel. And as the elements of a recent inflammatory infiltration are more easily dispersed by massage, so will the elements of a succulent cancer be more likely to be dispersed by manipulation and in the same proportion are they more likely to be reproduced.

The effects of such mechanical irritation upon a cancerous growth may depend upon the active hyperemia and consequent better nutrition of the tumor causing more rapid multiplication of the cancer elements, on the stimulation of the lymphatics causing more ready absorption of the cancer elements, and finally on the direct mechanical action by which such cancer elements may be conveyed into the surrounding tissues.

As practical conclusions he suggests that where the neoplasm is on an extremity and is extensive, the preference should be give to an amputation at a point remote from the disease rather than to an excision of the growth. As Wolfler has shown that when the Esmarch bandage is applied to a limb absorption is absolutely suspended beyond the constricting band, it seems to Dr. Gerster rational to employ the bandage always when excising malignant tumors situated on a limb.

In examinations of any form of tumor he insists that the utmost

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gentleness should be observed; obscure points in the diagnosis not bearing upon the treatment should rather be left undecided till after the operation; and unnecessary handling of suspicious tumors should be discouraged as well as so-called abortive methods of treatment.

Preparatory to operation the hyperemia and cell activity of a rapidly growing tumor should be moderated as much as possible by application of ice or the cold water coil for several days. During the operation all rough handling should be avoided. To facilitate removal with the least possible amount of manipulation he approves the suggestion of an English surgeon to support the tumor by a rope and pully from the ceiling, a sharp hook being fastened into the tumor after it has been exposed.

He advocates securing union by primary intention whenever possible, so as to avoid the increased cell activity attendant upon suppurative processes.

TINNITUS AURIUM AND NERVOUS DISEASE.

It not infrequently happens to the physician that he is called upon to treat a case of obscure nervous trouble, one in which after a careful review of all the symptoms, which may be more or less distinct, he is at a loss to determine what the nature of the trouble is, and where it is. Diligent search is made for some offending organ, but all seem to be performing their functions in a healthy manner.

One organ, however, has escaped attention, as it usually does in these cases, and that is the ear. Why this should be so, why the profession should so entirely leave out of consideration affections of the ear so often the source and possible cause of general constitutional disturbance, and more especially their effect upon the nervous system, we cannot understand. When its close proximity to the brain is considered, when it is remembered that it is intimately connected with other organs and systems of the body

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by nervous and vascular supply, a neglect to give to it the attention which its importance demands would seem to be culpable. These thoughts have been suggested by a perusal of a report on Tinnitus Aurium read at the Annual Meeting of the Association of Superintendents of American Institutions for the Insane by Dr. Geo. C. Catlett, Superintendent of the Lunatic Asylum at St. Joseph, Mo. In this very interesting paper the writer relates a case which serves to illustrate the ideas expressed above. The patient had had scarlet fever four years previous to his admission to the asylum with subsequent discharge from both ears lasting through the four years. He became eccentric, restless, self-willed and suspicious of those around him, fearing personal injury. He had insomnia, and in walking always described a circle, going around to the right. The tinnitus assumed the character of voices of persons talking to him. He was so obstinate that it was necessary to put him under restraint in order to examine and treat his ears. The auditory canals were found obstructed with hardened, dried pus and cerumen. Upon the removal of this and subsequent treatment of the ears the patient returned home in four months sane and apparently well of his aural trouble. Now, can there be any doubt that if this patient had received the proper treatment at the beginning of his aural trouble his after attack of insanity would have been prevented? We think not. In this case, however, there were symptoms pointing so directly to the ear that it was not possible to overlook it. But in those cases where there is doubt and an inability to locate the cause of the nervous symptoms, we believe that a careful examination of the ear would often reveal the existence of trouble sufficient to account for the patient's condition, the treatment of which would afford the desired relief. We are confident that our views on this subject are borne out by the record, and we should be glad to see affections of the ear receiving more consideration at the hands of the general profession.

As Dr. Catlett has called the attention of those who have most to do with the care and treatment of the chronic insane to this

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subject, we would emphasize his thought and urge it upon the thoughtful consideration of the general practitioners under whose care these cases first come, before they are committed to asylums for treatment. Doubtless proper attention to this matter in the outset may be able to avert the necessity of committing some such cases to the asylum at all.

OBSTETRIC PRACTICE AMONG THE NATIVES OF THE NEW HEBRIDES.

Dr. James Jamison, of Melbourne, communicates to the *Australian Medical Journal*, Feb. 15, the result of some inquiries that have been made for him by Rev. D. Macdonald, a Presbyterian missionary among the New Hebrides Islands. These particular inquiries have regard only to the natives of the Island of Fate and neighboring islands,and the answers may not be the same for others of the New Hebrides.

It is not by any means an easy matter to gain definite and reliable information regarding these matters from such people, but Mr. Macdonald says that the following statements can be depended upon.

These people have no theory to account for the different presentations in utero.

In case of a transverse presentation and in tedious labors they depend largely upon incantations. The person called in to give assistance is called a mitimauri and acts as a midwife. This person(who may be either male or female) on recognizing a transverse presentation takes a bowl of water and a young cocoanut with its milk in it. She takes the water, and after repeating an incantation over it blows on it. This is called *koroing* the water. The same formula is gone through with over the cocoanut milk. Part is given to the patient to drink. After *koroing* her own hands she gently rubs the remainder of the water and cocoanut milk over

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the patient's abdomen with a view to softening and relaxing the skin. This accomplished, she endeavors by gentle rubbing and pushing to lift and turn the child so that the feet may be up and the head down, the position being determined by abdominal manipulation.

The following is given as a specimen of the incantation that is repeated in the ceremony of *koro*: "Nature, nature that puts out! It shall for whom put out? It shall for A (the patient's name) put out; it shall for B. (her husband's name) put out the little child, that it come down (and) be upon the ground. It is what (kind of) *koro*? It is a good or efficient *koro*." On the completion of this incantation the mitimauri blows or breathes upon the water or milk or upon the hands. Only the special class or profession called mitimauri can perform this *koro* which may be called the midwifery *koro*.

In case of slow or difficult labor the process is the same as that described, except that instead of turning the child the mitimauri rubs the abdomen of the patient with a bearing or pressing down motion.

No instruments are used in midwifery except a knife of bamboo for cutting the cord. The cord is cut three inches from the child, and is neither tied nor wrapped up.

Certain plants are used to procure abortion and cause barrenness, but Mr. Macdonald had not been able to secure any of the plants in order to identify them.

Menstruation occurs first at about the age of thirteen, though it is impossible to determine this accurately, as these people do not keep any account of years, and do not know their own ages.

There is an idea of uncleanness associated with it among the Fatese. Where Mr. Macdonald lives it is called *na falien*, or separation. On other parts of the island the woman when in this condition has to live in a separate house used for this purpose alone. The same word is used in speaking of the uncleanness of death, menstruation and child-birth. If a man contracts this un-

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cleanness by contact with a dead body or with a woman when menstruating or in childbirth, he must be ceremonially washed or purified before, for instance, he can go to his plantation. Otherwise the uncleanness will be imparted to his yams, and they will rot and stink. It seems to be a peculiar effect attributed to the uncleanness of menstruation, that "it makes a man's eyes dark in war" so that he falls an easy prey to his enemy. When a man faints, his eyes are said to be dark.

After parturition the woman remains in the house with her child, doing nothing but attend to it for thirty days. Her husband and relations procure and cook her food. They believe that if she should do any work during this period her milk would cease or dry up. On the thirtieth day the child is taken out and laid in a dish of salt water with sand in it and then waved over the dish. The mother bathes in the sea. The child may then be taken outside at the mother's will. A feast is held and the mitimauri is paid. The child is not taken into the field or bush for about a year, as it is believed the demons would kill it. All this time the mother remains at home with her child. The child is not weaned until two or three years old.

DANGERS OF WATER-GAS.—The investigation with regard to water-gas undertaken some months ago by the Massachusetts Board of Health shows conclusively that the use of this illuminant is a serious source of danger to health. Water-gas is found to contain as much as thirty per cent. of carbonic oxide against seven per cent. in ordinary illuminating gas. The poisonous nature of this gas is well known and its danger is enhanced by the fact that being without odor no warning is given of its escape into the air of the room. Similar results have been found in France. Investigation there showed that thirty per cent. of carbonic acid did not kill, but one per cent. of carbonic oxide did in some cases.

The use of water-gas has been prohibited in France and in Massachusetts, but is in use in New York, Brooklyn, and to some extent in other cities of this country.

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BOOK REVIEWS AND NOTICES.

A PRACTICAL TREATISE ON THE DISEASES OF THE EAR, including a Sketch of Aural Anatomy and Physiology. BY D. B. ST. JOHN ROOSA, M. D., LL. D., etc. Sixth edition, revised and enlarged. *New York: Wm. Wood & Co.* 1885. 8vo.; pp. 718; cloth. (St. Louis Stationery & Book Co; J. H. Chambers & Co.)

In the present edition of Dr. Roosa's work we find that he has pursued the general plan and followed out the same arrangements as in former editions; by giving first a short history of the progress of otology, then a chapter upon the examination of patients; then taking up, separately, each division of the ear and giving its anatomy and physiology together with the diseases and their treatment of the part under consideration, and closing with a chapter upon deaf-mutism, and mechanical assistance to the hearing. With most writers on this subject it is usual to devote the first part of their books to the anatomy and physiology of the organ, and the latter part to its diseases and their treatment. The arrangement of Dr. Roosa possesses one advantage, however, as it serves to keep entirely distinct the part under discussion and exhausts it before another is taken up. This work the author tells us is based upon the experience obtained in the treatment of more than twelve thousand cases, of which he has had the personal responsibility, and throughout the text many of these cases are given as illustrative of the methods of treatment adopted, and their results, and form no uninteresting part of the work.

With such an extended experience as the writer has had his views should be held in great esteem unless they are found to be in conflict with a decided majority of his professional brethren. On one point, "the dry treatment of diseases of the middle ear," we notice that there is such conflict, and it is a matter of surprise to us that this method of treatment, which has become so general both in this country and in Europe and has given such general satisfaction, should have failed in the hands of Dr. Roosa. He does not, however, sacrifice his independence to the experience of others,

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but still maintains that the syringe is the best method of cleansing the ear and gives to powders a secondary importance in the treatment. He is disposed to cast ridicule upon the dry treatment, styles it the "so-called" dry treatment and says: There was a famous peripatetic quack who poured plaster of Paris into the ear for the cure of a long existing discharge for a time, and then says, "much of the so-called dry treatment of to-day will in some cases be as disappointing as was its *proto-type.*" To say the least of it, the comparison as affecting those who differ with the author is unjust. Aside from this we can commend the work to those who may need it as fully up to the present time and as well worthy of perusal. The style is clear and the language concise and forcible. The illustrations are very good and the publishers have performed their part in an excellent manner. D. C. G.

THE INTERNATIONAL ENCYCLOPEDIA OF SURGERY. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Nations. Edited by JOHN ASHURST, JR., M. D., etc. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. V., *New York: Wm. Wood & Co.* 1884. Royal 8vo., pp. 1207; sheep or cloth.

The fifth volume of the International Encyclopedia of Surgery is devoted to Regional Surgery.

Among the notable chapters found in the book we may mention as especially worthy of note those on Injuries and Diseases of the Mouth, Fauces, Tongue, Palate and Jaws by Christopher Heath, F. R. C. S.; Diseases of the Breast, by Thomas Annandale, F. R. C. S., E.; Injuries and Diseases of the Abdomen, by Henry Morris, F. R. C. S.; Hernia, by John Wood, F. R. C. S.; Injuries and Diseases of the Face, Cheeks and Lips, by Alfred C. Post, M. D.; as also the Chapter on Injuries of the Head, by Charles B. Nancrede, M. D.; and the one on Malformations and Diseases of the Head, by Frederick Treves, F. R. C. S. These will be especially interesting to the general surgeon.

Some of the remaining chapters are of more interest to specialists in surgery, as they treat of the Eye, Ear and of the Air Passages.

The experience and deserved wide reputation of most of the authors are a sufficient guarantee for the character of the work. The work as a whole will undoubtedly be a most complete and valuable one to the general surgeon. The character of the work is well sustained in this volume. I am more and more pleased with

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the work as it progresses and believe it is the most valuable work on general surgery that we have. H. H. M.

THE ANALECTIC. A Monthly Periscopic Summary of the Progress of Medical Science. Edited by WALTER S. WELLS, M. D. Vol. I. *New York and London: G. P. Putnam's Sons.* 1884. 8vo.; pp. 582; cloth.

This bound volume of the *Analectic* constitutes a valuable review of medical progress during the year.

THE NEW LOCAL ANESTHETIC. HYDROCHLORATE OF COCAINE, AND ETHERIZATION BY THE RECTUM. BY LAURENCE TURNBULL, M. D., Ph. G. Illustrated. *Philadelphia: P. Blakiston, Son & Co.* 1885. 12mo.; pp. 76; paper.

Dr. Turnbull presents to the profession in this little pamphlet a brief summary of the experience thus far reported with reference to the two modes of securing anesthesia, local and general, which have been urged during the last few months. Dr. Turnbull's special studies for some time have been directed to the subject of anesthesia, and he has given careful consideration to these new candidates for professional favor.

HUMAN OSTEOLOGY, Comprising a Description of the Bones, Etc. BY LUTHER HOLDEN, Assisted by JAS. SHUTER, F. R. C. S., etc. With numerous illustrations. Sixth Edition. *New York: Wm. Wood & Co.* 1885. 8vo.; pp. 276; cloth. (Wood's Library); (St. Louis Stationery & Book Co).

The publishers have made a valuable and practical addition to the "Wood's Library" in the selection of Holden's Osteology. The work is deservedly popular as the number of editions through which it has passed proves. The Wood's edition is a very creditable reprint of the Sixth London edition. The numerous fine cuts which so commend the original edition have been very faithfully reproduced, making an attractive volume. F. R. F.

COCAINE AND ITS USE IN OPHTHALMIC AND GENERAL SURGERY. BY H. KNAPP, M. D., etc. *New York and London: Geo. P. Putnam's Sons.* 1885. 8vo.; pp. 87; cloth.

This little volume contains an interesting summary from the pen of Dr. Knapp of his own observations and those which had been published at the time of preparing the paper with reference to this wonderful agent which has attracted so much attention in these last few months. This paper appeared first in the *Archives of Ophthalmology* for December, 1884. To this are appended

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papers by Dr. F. H. Bosworth treating of the use of cocaine in the upper air-passages; in general surgery, by R. J. Hall; in genito-urinary and minor surgery, by E. L. Keyes, in Gynecology and Obstetrics, by W. M. Polk.

A HAND-BOOK OF OPHTHALMIC SCIENCE AND PRACTICE. BY HENRY E. JULER, F. R. C. S., Junior Ophthalmic Surgeon to St. Mary's Hospital, London, etc. *Philadelphia: H. C. Lea's Son & Co.* 1884. 8vo., pp. 467; sheep. (J. H. Chambers & Co.)

The illustrations, of which there are one hundred and twenty-five, are many of them good and valuable, particularly those showing the anatomy and histology, which, with the anatomical and histological descriptions are distributed through the book. Whenever a new region is taken up its anatomy and histology are first given and then its diseases and their treatment.

The author has attempted by colored illustrations to make the reader understand more perfectly the superficial diseases of the eye. We cannot commend this attempt, as the colors are so unnatural that they would be apt to mislead one not practically familiar with the affections illustrated.

Some of the illustrations of diseases of the fundus are good and some are poor. The one intended to represent retinitis pigmentosa in an advanced stage is particularly poor.

The author makes a mistake in assigning Green's Astigmatic Clock to Carter.

The book contains the most complete discussion of Keratoscopy, r etinoscopy or shadow-test for refraction that we have seen.

While the contents of the book, as a whole is good, it adds nothing of value to ophthalmic literature. M. H. P.

BOOKS AND PAMPHLETS RECEIVED.

The Physiological Effects and Therapeutical Uses of Hydrastis. By Roberts Bartholow, A. M., M. D., LL. D. (Reprint from the Drugs and Medicines of North America, March, 1885)——Experimental Researches on Cicatrization in Blood Vessels after Ligature. By N. Senn, M. D. (Extracted from the Transactions of the American Surgical Association, Vol. II, 1884).——Report on Tinnitus Aurium. By George C. Catlett, M. D. (American Journal of Insanity).——The Thermic

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REPORTS ON PROGRESS.

SURGERY.

Operative Measures for the Relief of Pyloric Stenosis.—DR. RANDOLPH WINSLOW discusses the various methods devised for the relief of the distressing symptoms due to various forms of pyloric stenosis of the pylorus. He concludes his paper with the following summary:

1. In cancer of the stomach not producing stenosis, anodynes should be given in quantities sufficient to relieve distress, and no operation should be performed.

2. Pylorectomy for carcinoma is followed by 76 per cent. mortality: hence it should only be very exceptionally performed in those cases where, with marked stenosis, the pylorus is not adherent to the neighboring organs, and the patient is young and fairly strong.

3. In other cases of carcinomatous stenosis, as only very temporary benefit can be obtained, gastro-enterostomy should be performed.

4. In cicatricial stenosis digital divulsion should be performed, but if this is impossible owing to great thickening of the walls, resection in those who are well nourished, and gastro-enterostomy in the debilitated will both be followed by good results.

5. Hemorrhage or perforation from ulcer or other cause than stenosis, does not present indications for pylorectomy.

6. Duodenostomy, gastrostomy for the passage of a tube, and complete gastrectomy should all be replaced by gastro-enterostomy.—*Am. Jour. Med. Sci.*, April, '85.

Recurrent Mammary Fibroma in a Child.—Geo. G. HOPKINS reports a case of recurrent mammary fibroma which is of interest on account of the early age at which the disease manifested itself. The family history is good except that the mother has uterine fibroma. The disease first appeared in this child at the age of

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seven years, when a tumor of about the size of a chestnut was removed from her right mamma. This was pronounced "malignant" by the surgeon who removed it. About six months after the removal of this tumor, a second small growth was discovered in the left mamma. In the course of two years it increased in size very gradually and then ceased, having reached a diameter of about one inch. Last June it began to grow rapidly and it was decided to have it removed. October 6, the whole mammary gland was extirpated, together with four axillary glands which were diseased. The nipple and areola were also removed with the tumor. The wound healed kindly under an antiseptic dressing.—*Boston Med. and Surg. Jour.*, March 26, '85.

Erysipelas and the Antiseptic Method.—M. VERNEUIL read a paper with this title at the meeting of the French Academy of Medicine, February 24, 1885, comparing the results of treatment with and without antiseptics. The following conclusions were reached:

1. Erysipelas, an infectious, contagious, auto-inoculable disease, has many causes which it will for a long time yet be difficult to suppress.

2. In our great centres erysipelas essentially endemic is perpetuated at two distinct sources: the one exterior, the city, the other interior, the hospital, which reciprocally poison one another.

3. We have little direct hold upon the endemic of the city or upon the sporadic cases of the interior. Nevertheless, we have much more hold upon the hospital centre. Here we can in great measure prevent the appearance and extension of the trouble by minute precautions against auto-inoculation, by antiseptic dressings, by isolation if it is practicable, and in lack of that by the creation around the patient of a circumscribed antiseptic atmosphere.

4. The diminution of erysipelas in the surgical ward not only renders the ward more wholesome, but does the same for the whole hospital and the quarters tributary to that hospital, as conclusively demonstrated by the considerable diminution of erysipelas cases coming from it.

5. If the prophylactic and curative resources whose efficacy science has demonstrated, were rigorously and generally applied in city and hospital, we might hope that erysipelas would become

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rare like pyemia and possibly disappear completely like hospital gangrene.—*L'Union Médicale*, Feb. 23, '85.

OBSTETRICS AND GYNECOLOGY.

Arrested and Deficient Lactation.—Dr. H. F. CAMPBELL reports several cases that he has observed in which the secretion of milk has been more or less completely arrested after the function had apparently been fully established. In some of these cases the application of a mild galvanic current for about twenty minutes daily was entirely successful in effecting the restoration of lactation. In others the success was only partial. He thinks the result was such as to warrant hope of successful application of this agent in other similar cases.—*Atlanta Med. and Surg. Jour.*, April, 1883.

Spontaneous Rupture of the Membranes at Full Term of Gestation Preceding the Beginning of Labor.—DR. G. W. H. KEMPER, of Muncie, Ind., offers a careful study of 50 cases of spontaneous rupture of the membranes, occurring in his first 700 obstetrical cases, and he finds that—

1. The spontaneous rupture of the membranes at full term of gestation, and preceding the beginning of labor pains, is an event of common occurrence, averaging about once in every fourteen labors.

2. When the membranes are broken, as a rule, labor supervenes at once, or within the next four hours, but may be delayed several hours, days, or even weeks.

3. When such an accident occurs, the duration of the labor is not necessarily prolonged, nor rendered more painful.

4. The mortality of the mothers is not augmented, and the ratio of stillborn children, if at all, is so slightly increased as to amount to a minimum.

5. The causes are not well defined. The repetition of the accident in certain women shows that with some a tendency is inherent. A possibility of atmospheric influences, especially a low temperature, as an exciting cause is admissible. Smellie considered obesity a cause. His observations have not confirmed this statement.

6. It is probable that the duration of labor is shorter in cases

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where the appearance of pains is delayed for some time after the membranes are ruptured.

7. The proper plan of treatment, as given by Smellie, McClintock, Bard, Denman, and Dewees, and corroborated by Dr. Kemper's experience, is rest, if necessary in a recumbent posture, and patience. All efforts to excite labor-pains are hurtful, meddlesome and mischievous. Wait for pains, and treat the case on general principles!

8. Finally, the fear of delay and danger in this class of cases—the classical "dry labor"—promulgated by our early obstetrical fathers, and indorsed by successive authors generally, is based on a merest spark of truth, and is one of those medical traditions that experience shows to be over-estimated and to a large degree apocryphal!—*Am. Jour. of the Med. Sci.*, April, '85.

Vicarious Menstruation.—DR. W. THOMAS records a peculiar case in which the usual menstrual flow was replaced by sero-sanguineous discharge from the ear. The patient first came under observation when suffering from injuries incurred during a drunken row and it was supposed at first that she had sustained a fracture at the base of the skull. On careful investigation it was learned that menstruation had been regular up to the age of 25, when in a drunken quarrel she received a kick on the side of the head from her husband's heavy boot. The red discharge from the ear appeared then for the first time; symptoms of cerebral disturbance then set in, and she was confined in a lunatic asylum for some months. After that injury her menstruation was never regular, but occurred at intervals of six to twelve months. The flow was scanty and there was no discharge from the ear coincident with that from the uterus. Except when the natural flow occurred there was regularly every three or four weeks a sero-sanguineous discharge from the ear.—*Australian Med. Jour.*, Jan. 15, '85.

Menstruation at Eighty-Four.—W. H. ANDREWS records a remarkable case. Mrs. D. ceased to menstruate at the age of sixty. For twenty years there was no sign, but at eighty years of age menstruation was re-established and has continued regularly in all respects to the present time when she is eighty-four years of age. Careful examination fails to detect anything abnormal to account for the remarkable phenomena.—*N. Eng. Med. Mo.*, March 1885.

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Impromptu Tarnier Forceps.—F. J. YOUNGS states he has several times made use of a simple means of securing axis-traction by slipping straps through the fenestra of the blades of ordinary forceps and making traction with the straps.—*N. Eng. Med. Mo.*, March, '85.

Episiotomy.—W. P. MANTON strongly advocates episiotomy as a means of averting rupture of the perineum. He studies the statistics of ruptured perineum as given by different writers on obstetrics, and draws the conclusion that it is important to do something if possible to diminish the proportion of these cases. He finds that episiotomy does diminish the frequency of these ruptures to a minimum and only in very exceptional cases does rupture take place after episiotomy, and that the operation does not increase the danger of infection. He performs the operation with a probe-pointed bistoury, which he lays flat against the fetal head and slips it between the head and the tense ring at the vulvo-vaginal orifice. He then turns it so that the cutting edge comes to the constricting ring and is withdrawn just at the close of a contraction while the tissues are still tense. The incision need not be more than one to three centimetres in extent. If necessary it may be repeated on the other side. So little pain is produced that he has often done it without the patient being aware of it. He says if the operation has been quickly and rapidly done the head may be delivered during the pause succeeding the incision, but it should not be allowed to escape during a contraction, lest the incision be torn down or a posterior rupture also takes place.—*Am. Jour. of Obstetrics*, March, '85.

Electricity as a Galactagogue.—DR. J. C. REEVE says that electricity has been an uncertain remedy in his hands when used as a galactagogue, sometimes failing utterly and at other times acting very efficiently. In one case where at a first delivery the milk had been very scanty and in a few weeks dried up entirely, he found the same deficient supply of milk during the first weeks following the second delivery. He applied electricity twice daily for a week and once daily for some time longer with the result of establishing an abundant flow of milk. On passing the current through the breast the milk could be seen to exude from the nipple and drop down. In two other cases the result was negative.

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He made use of the Faradic current.—*Am. Jour. of Obstet.*, March, 1885.

Possibly he would have had better success with the galvanic current. The subject is an important one and Dr. Reeve's suggestion that it would be a good subject for "collective investigation" is a valuable one. We shall be glad to hear from any of our readers who have had experience in this direction.—ED. COURIER.

Prolonged Gestation.—L. B. ALMY reports the case of a patient who was under his treatment for uterine disease. Menstruation occurred January 14, 1883. Intercourse occurred but once during January, viz., January 25. The pregnancy resulting terminated November 21, being 311 days after the commencement of the last menstruation or 300 days after intercourse.—*N. Eng. Med. Mo.*, March, '85. Vid. Communications in this Number. [ED.

MEDICINE AND THERAPEUTICS.

Cough Remedy.—DR. E. G. CUTLER, in reporting to the Boston Society for Medical Observation some cases of chronic catarrhal pneumonia which had recovered, notes the following with reference to cough: Those of us whose experience in coughing is limited to an occasional attack of bronchitis do not always realize what hard work it is for a debilitated person. The secretion which has accumulated during sleep must be got rid of in the morning, and the aid which is afforded by the administration of a cup of very hot broth, cocoa, or the like, as soon as possible after waking, is very remarkable.—*Boston Med. and Surg. Jour.*, March 26, '85.

Membranous Croup; Diphtheritic Croup; True Croup.—DR. J. LEWIS SMITH says that, whatever the cause, the anatomical character, the clinical history, and the required treatment are so nearly identical that attempts to differentiate the disease when produced by other agencies than diphtheria from that due to diphtheria have proved futile and unsatisfactory in localities where diphtheria occurs, except in a few instances, as, for example, when croup has been manifestly caused by swallowing or inhaling some irritating agent.

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Dr. Smith holds that inflammation of the laryngeal and tracheal surface, whatever its cause, whenever it reaches a certain grade of severity, may be attended by the exudation of fibrin and the formation of a pseudo-membrane, but such a result more frequently occurs in the inflammation caused by diphtheria than in that produced by other agencies. In diphtheria a moderate laryngo-tracheitis is attended by the pseudo-membranous formation. Dr. Smith's experience leads him to believe that not more than one in eight cases of croup has recovered by medical treatment which began in the first week of diphtheria, and in which the symptoms were so pronounced as to indicate more or less laryngeal stenosis. The exudation in the first week of diphtheria, or in its active period, occurs so rapidly, and in such large quantity, that no one of the medicinal agents or modes of treatment, which physicians commonly prescribe, is sufficiently prompt in its action to prevent the formation of the pseudo-membrane to an extent that soon endangers life.

Croup occurring in the second or third week of diphtheria, since it is attended by abundant and less rapid exudation than when it occurs during the acute stage, can be more successfully treated under the persevering use of solvent inhalations, and a larger proportion than one in eight, perhaps one in three, recovers by the early and continuous or almost continuous use of inhalations.

Still the mortality is so large, and the suffering so great in croup, at whatever stage of diphtheria it occurs, that we cannot rely on the action of medicines or inhalations, and surgical treatment is in most instances required to diminish the suffering, and afford the best chances for saving life.

Under the head of medicinal treatment he strongly recommends trypsine as a solvent of false membrane. Of calomel, he says: The experience of many physicians justifies the belief that mercury and especially calomel employed within certain limits in the commencement of a pseudo-membranous inflammation does exert some controlling action on this disease. That it did much harm formerly when physicians prescribed it as freely as we now employ potassium chlorate, to the extent in many instances of increasing the cachexia and causing mercurialism, should not deter from its judicious use. In the ordinary form of diphtheria he would not advise the use of calomel, or would limit its employment to one or two doses of six n grains in the commence

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ment of the disease in robust cases. But in croup, since the danger is not from the cachexia or blood-poisoning so much as from the laryngeal stenosis, which is apt to develop rapidly, that medicine is indicated and should be prescribed, which most strongly retards the exudative process, and aids in liquefying and removing the pseudo-membrane; provided that it produce no deleterious effect which renders its use inadmissible. Hence it is proper to prescribe calomel in larger doses and for a longer time in the treatment of croup, than in other forms of membranous inflammation, if it fulfill the indication, as it seems to in a measure. In his own practice, however, calomel is not prescribed after the first or second day, since Dr. Smith prefers the use of other remedial measures, which are efficient, and are less likely to produce injurious effects. The subject of surgical treatment is also fully discussed, and Dr. Smith holds that we can claim for tracheotomy judiciously performed, and at a sufficiently early stage, the cure of one in every three patients on the average.—*Am. Jour. of the Med. Sci.*, April, 885.

Nervous Colics.—DR. CHERCHEVSKI calls attention to a group of symptoms which he has observed especially in persons whose work taxes the mind and who are anemic or debilitated.

Such persons are habitually constipated and have abdominal enlargement, noisy eructations without anorexia. Now and then under the influence of prolonged intellectual labor or emotion this condition is aggravated suddenly. Enormous meteorism develops, there is superficial respiration, shortness of breath, cyanosis, pains sometimes fixed at the site of the liver, or in the umbilical region, sometimes shifting about, then a sense of weight at the pit of the stomach with a violent tenesmus. The attack ends in a few days, with abundant evacuations. On the approach of the crisis the excrements take on a ribbon form as if there were a stricture of the intestine.

The doctor regards these phenomena as due to a lesion of the nervous system, producing a localized intestinal spasm in the circular fibres of the muscular tunic. He thinks this is demonstrated by the action of medicines, since in these patients purgatives increase the pain and constipation, while opium and belladonna relieve both the meteorism and the other symptoms.—*Chron. Medico-Quirurg. de la Habana.*

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting—March 19, 1885.—DR. W M. MCPHEETERS, President, in the Chair.

TRACHELORRHAPHY INSTRUMENTS.

Dr. Gehrung.—I wish to show a knife I made some years ago for trachelorrhaphy. This is perhaps more serviceable than the ordinary ones. You will observe that the knife will cut both backwards and forwards. This knife enables us to dispense with right and left handed knives. It can be used in most operations on the genital tract, and particularly in trachelorrhaphy.

Dr. Ford.—I have had a similar knife, devised by the late Dr. Nott, for ten or twelve years. It is exactly like the one shown, only it has a little longer blade. I have never been able to use it with much satisfaction, or to get it properly sharpened.

Dr. Prewitt.—I have had a similar one made a year ago, but a little broader.

Dr. Boisliniere.—With regard to the operation of trachelorrhaphy I wrote to Dr. Dawson of New York, and he had the kindness to send me his scissors. You know in using scissors in performing trachelorrhaphy the difficulty sometimes is that parts escape and fall back when cut, especially in a posterior or bilateral section of the neck. As you are aware the neck flies back, and in order to guard against this Dr. Dawson has invented the scissors which has tentacular points engaging with each other.

Dr. Engelmann.—These scissors and other inventions are very ingenious and serviceable in the hands of the men who invented them, but I prefer to use an ordinary bistoury in these operations. I use the scissors occasionally, the plain scissors, but ordinarily the bistoury. I have given up the right and left angular knives, curved knives and all those various instruments I formerly used, and a lit-

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tle case with three or four bistouries is what I always take now. I usually carry with me several, because one is liable to become dull. I find that a good sharp knife with a neat blade is all that is necessary for every purpose, and I believe in using the very simplest instruments which will answer our purposes.

Dr. Boisliniere.—You will find these scissors of Dawson very useful in posterior section of the cervix. I think it is a valuable contribution to our armamentarium. It is a very ingenious instrument and a useful one in a great many cases.

Dr. Gehrung.—I believe that a dextreous operator can get along without such instruments as this; but I think that even in the hands of a dexterous operator such a knife or scissors as these will be an advantage; they will enable him to operate with more facility than he could with an ordinary bistoury. I don't mean to say that the knife or scissors is absolutely necessary, but it may be a great convenience even to a dexterous operator.

PROLONGED RETENTION OF OVUM.

I have here a specimen, gentlemen, which leaves some doubt on my mind as to its character, and I have to accept with it the history that the patient gives, which as you know, is not always reliable. But as the history corresponds with my examination of the case, and as the specimen offers some valuable suggestions, I thought it my duty to bring it before you. While attending a lady she said that her servant girl, of the age of about 40, had frequently suffered from hemorrhages, that she would go from two to three months without menstruating and then flood again, and that she had been going on in this way for a long time. The patient reported that she had been troubled with these hemorrhages for four years; in short repeated the history given to me by her mistress, adding that during the time between the hemorrhages she was constantly troubled with vomiting in the morning on getting up. When I was told of this case she had just such a hemorrhage, and some time after the hemorrhage was over she called on me to be examined. I found the uterus considerably enlarged and hard like a fibrous tumor in a high degree of anteflexion. I suspected that possibly there was pregnancy; but on account of the hardness of the tumor it looked rather improbable. I did not at that time make an intrauterine examination. A few days later she had another flooding, and then I was called in and prescribed some medicines in order to arrest the flow with only partial success. Then I made an examination

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and found that the os was dilated so as to admit the index finger to the internal os, where I felt a hard foreign body, like a fibroid to the touch. Then I withdrew the index finger and substituted the middle finger, which, I think, gives us an inch more of length and at the same time is stronger and thicker. So I found a large body lying in the uterine cavity, having no adhesions except where in contact with the fundus towards the left cornu, where it was attached by a pedicle of about its own diameter. I pressed the middle finger sharply against it from all sides, but did not succeed in completely breaking up the attachment, which was very strong. By bending the finger around the tumor and withdrawing it slowly while I pressed the tumor against the wall of the uterus, the tumor was brought down sufficiently to be grasped by a pair of forceps, and to be gently twisted off. The flooding, etc., soon ceased. Now the history of the case is peculiar. The woman says she left her husband about five years ago and lived in Colorado as a servant. She had at one time clandestine intercourse, by which she supposed she became pregnant, and telling a lady friend about it the latter gave her a remedy which she herself was taking habitually to produce early abortion on account of pelvic deformity. She took medicine for nearly a week and then flooded for about a week, after which there was a period of rest of about two or three months and then she flooded again, and that continued for four years, during the whole of which time she had a kind of morning sickness. This was one year after she left her husband. You will find on examination that within this tumor there is a fibrous prolongation much like an umbilical cord, and on rupturing the investing membrane of the tumor, the decidua vera, I found the villi of the chorion compressed and somewhat altered, so that there is no doubt that it is an ovum that is in a shrivelled condition. I requested the patient repeatedly in the interest of science to tell me the exact truth about the matter, and she said "you can depend upon what I have told you, as I have admitted that I had illicit intercourse once, and if I had had such since I would have no hesitancy or object in refusing to tell you." She said that this experience had been a warning to her to keep away from such things. I suppose the reason why this product was not thrown off sooner was because of the anteflexion which would tend to prevent it. Now if my suppositions as to the character of the growth and the length of its retention are correct, it will show how long a growth of this character may remain in the uter-

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us. I have been trying to find some definite statement as to how long an ovum may be retained in the uterus, but have been unable to find anything more positive than that it may remain from a few days to a few months. I think this case is valuable, if it proves to be correct, from a medico-legal point of view. Suppose a woman be delivered of such a tumor, showing the positive evidences of its being an ovum, during, or shortly after a prolonged absence of her husband, it would at least throw doubt on her chastity. Then again, the physician who succeeds in removing such a growth might be accused of having caused an abortion, a question not altogether devoid of interest. It was removed about nine months ago. The patient has had no hemorrhage nor vomiting since this was removed, and is in fact now a healthy woman.

Dr. Boisliniere.—This is a very interesting case. It is one of those cases that Schroeder calls internal abortion; where the fetus is lost and the tendency is to the formation of a fleshy mole with a cavity in its centre.

Dr. Engelmann.—With regard to the length of time that abortion or at least a mole may be retained after symptoms of abortion I would observe that I was called, while assistant of the Berlin Lying-in Hospital, to remove what was supposed to be a tumor, on account of profuse hemorrhage. It proved to be a solid mass somewhat larger than this one, as long as this, but rounder, and almost solid. On section it also showed a small cavity, which proved it to be a mole, retained five months after the first symptoms of abortion, at two and a half months. The patient had symptoms of abortion, but nothing was expelled as in this case. There was occasional hemorrhage, which six weeks later became more profuse. I removed the mole and the flooding ceased. It was so solid and the signs of abortion had occurred so long previously, that the growth was presumed to be a tumor, and inspection only showed its true nature. A microscopical examination was made to determine the case. This was considered a very unusual case. This case is the only pointer I have as to the length of time that retention is possible. I have never seen a case retained so long, perhaps with one exception, and that was a part only of the ovum generally considered as the placenta. The fetal membranes were retained and were firmly attached. The case came under my observation about seven months after the patient had had a partial miscarriage. There had been occasional bleeding, and on account of the constant slight

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trouble with the occasional hemorrhage she came for relief, and I believed it to be a tumor because it was firmly adherent by a broad base to the uterus. It was perhaps equal to the size of that specimen but much flatter, and was thoroughly and firmly adherent on a base as large as the entire mass. Upon removal with a large scoop this growth proved to be the fœtal membrane. It had remained attached during seven months, forming absolutely one mass of tissue with the uterine wall.

Dr. Boisliniere.—The question as to how long an aborted ovum can remain in the uterus without being expelled is very interesting in a medico-legal aspect. In the case which Dr. Gehrung reports it was four years, and the woman had no reason to deceive him. She stated that she had had illicit intercourse four years before, in the absence of her husband, with this result. She had no reason to deceive her medical attendant or to have made any confession whatever under the circumstances, so that I am inclined to believe the woman, and the probability is that it was four years before this product was finally expelled. It is very important, because if a woman were separated from her husband two years and this took place it might be traced back for a few months perhaps; but if her husband had left her before that time it might be supposed that it was an illegal conception. I will relate a case in which an ovum was retained a long time. In my younger days I had a case of delivery at full term where some time after the birth of the child the patient passed a mass somewhat like that, but larger. I did not examine it carefully, I did not make a section of it to see whether there was a cavity or not, but it appeared exactly like this. It was organized, it was not a fibroid tumor; but it appeared as if it might have been the result of conception, though the patient may have had a uterus bicornis and it may have remained there until after the other child was born. There may have been about a year between the two conceptions. This corroborates the position taken by Dr. Gehrung that this is quite possible after four years.

Dr. Engelmann.—How long was the mole retained which you speak of?

Dr. Boisliniere.—I don't know; it was passed when the child was born, but it was not quite so large as this. And there is another point that Dr. Gehrung has suggested, as to whether we might be accused when delivering a woman of such a mole of having pro-

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limbs, often weak and almost useless, sometimes seen after the operation of exsection, were worse than a well-fitting, full length, artificial limb with a movable knee joint.

Dr. Steele thought in scrofulous subjects with tubercular degeneration of the synovial membrane and soft parts, and tubercular deposit, or changes in the bone, there would be less hope of good results from conservative treatment than where the joint trouble was from traumatism and following simple inflammation. The former would be the cases for excision rather than the latter.

Dr. Brokaw said he had very little experience in this department, but recollected a case a good many years ago of a young physician who was his assistant in the City Hospital. He could not see any real reason why any injury such as Dr. Steele had mentioned should occur. In the case referred to there had been a compound comminuted fracture of the tibia involving the ankle joint, the bone being split. The portions of splintered bone were removed by exsection. The injury occurred at Little Rock, and the army surgeons there thought best to amputate the limb, but he would not have it done and came to St. Louis. Dr. Hodgen saw the patient with Dr. Brokaw. The bone was removed; the ankle joint being involved.

Dr. Carson was inclined to think that Dr. Steele had gone a little too far. While the opinions of many were opposed to excision of the joint, still there were many good surgeons and men of experience who still urged and advised the excision of the joints instead of amputation. In this case it was true that the destruction of the bony parts was not great, but there was destruction of the entire soft parts of the joint. This had made the suffering intense. This had continued for a long time before he came into the hospital. And after he came into the hospital his sufferings were intense in spite of treatment, and the fact that he was failing steadily caused the decision to make excision of the joint. This surely was strongly in favor of the operation that the patient who up to the day of operation was wasting steadily, immediately afterwards began to improve and gained between fifteen and twenty pounds in seven weeks. This was the fourth case, he said, in which he had performed this operation. The first, a very severe case, was operated upon six or seven years ago. A considerable portion of the bone was removed. The boy has since learned a trade and is now a useful member of society. There

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had been no necessity for amputating his limb, nor was there any indication that it ever would be necessary.

In the second case the operation was performed three years ago. The patient was a young man who had been suffering for years with inflammation of the joint, with great destruction not only of the soft parts but also of the bone. The doctor had heard since from people living in his neighborhood that he is able to take care of himself, which he had never been able to do up to the time of this operation.

The third case was that of a man here in the city who had been suffering, as he supposed, from a loose body in the joint, a piece of broken cartilage it was supposed. He had been a very great sufferer. There was destruction of the joint surface, cartilages and also of the soft parts. The doctor had heard from him six or eight months after the operation, that he was going about, using the limb; that he was still improving and expected to go to work at his trade, that of a wagon maker, very shortly. In none of the cases on which he had operated had he heard or seen any indication that would point to an after amputation being necessary. He did not believe that in the majority of these cases when the operation is done in time any amputation would be necessary. If done at all, he thought it should be done early.

Dr. Steele asked if there was tuberculous degeneration of the soft parts.

Dr. Carson said that there was not in the case last operated upon, but in the first case there apparently was tuberculous degeneration. He thought that the patient was a tuberculous subject. If he had not promised before he was taken to the operating room that he would not amputate his leg, he would have taken it off. He did not expect a good result in this case,but to the surprise of everybody who had anything to do with the operation or the patient, he did very well commencing to improve a short time after the operation. As to the time required for the patient to wear the splint, he did not think that his patients had worn the splint more than from nine weeks to four months. That was the longest and that was in the tuberculous patient. The doctor asked what Dr. Steele would expect from the straightening of the limb in a case of this kind, where there was destruction of bone and intense suffering of the patient.

Dr. Steele answered that it occurred to him that where there was

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so little destruction of the bony parts as in the specimen presented, although the soft parts might be involved, if he should divide the hamstring muscles and straighten the leg and then put in drainage tubes, use antiseptics, etc, he might expect to get anchylosis of the joint. As there was no tuberculous degeneration in this case that would have been a very hopeful procedure. He thought we might get a better result if we could arrest the inflammation and produce bony anchylosis so that the limbs would be of the same length.

Dr. Carson remarked that while we have a certain amount of shortening after excision of the joint it is not so much as we have been led to suppose. He said that as a matter of fact the shortening is very little after one of these cases of excision. In his first case he took away the entire end of the bone, and yet when they measured the boy's leg before he left the hospital the shortening was not very great; a little added to the thickness of the sole of his shoe compensated for the shortening. The boy was only fifteen years of age. As to Dr. Steele's suggestion to straighten the limb and secure anchylosis he thought in that case he would certainly have as stiff a limb as in this case after excision of the joint. His own experience in excision of the joint led him to conclude that recovery is much quicker and the patient has a much more satisfactory limb after that operation than after the others that have been practised.

Dr. Brokaw said that a young lady, a former patient, had died recently in Iowa of hip joint disease under care of a very competent man. This patient had had every advantage and every facility for treatment, and was placed under the best hygienic influences that could be had, but in spite of all she died. He would like to know what had been the result of exsection in cases of hip joint disease.

Dr. Carson said his own experience in excision of the hip-joint had been very slight. The only case of this sort that he had had ended fatally. He had several times with good results removed the head of the bone and portions of bone where there already existed sinuses, where the bone had already been destroyed by the inflammatory process. Dr. Sayre and some others claimed to be eminently successful with their operations, but the majority of surgeons do not agree with Dr. Sayre.

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FRACTURE OF SKULL—DEAFNESS—RECOVERY.

Dr. Todd presented a patient, a man who had received a blow on the head last November which caused him to be unconscious for three days. When he came to his senses he found himself entirely deaf in the left ear. There had been and was then a free discharge of watery liquid tinged with blood from that ear. His head was dizzy and felt decidedly confused and he could not walk around well. This occurred in Arkansas. He came to St. Louis in January, and presented himself at the clinic at the college exhibiting these interesting conditions. Dr. Prewitt had clearly diagnosed fracture of the base of the skull. There was still total facial paralysis on the left side, also paralysis on the left side of the tongue anteriorly and in his gait he was very staggering. His equilibrium was affected. He could not turn around with any degree of certainty, if he did it rapidly. Of course all these symptoms pointed plainly to injury to the petrous portion of the temporal bone. The extremely interesting point in regard to the patient's case was this, that he hears very well in that ear now. The doctor never expected he could do so, as he was totally deaf when he first came under treatment. There was every indication of total deafness, loss of equilibrium, and in fact when the patient came to the clinic he told him that perhaps he would not regain his hearing. There was still (when the patient was presented) quite evident facial paralysis. The muscles at first had refused to respond to the galvanic current and they did not respond to the faradic current at all. He had been under daily treatment for a week; a weak galvanic current had been sent through the head from one ear to the other; also the positive pole had been pressed under the ear over the facial nerve and the negative stroked over the paralyzed muscles. He can now fairly close his eye and mouth, which he could not do at first; the mouth hung down at one corner. At this time there was still a little fulness of the lower lip; it was quite marked before. There was now some control of the muscles on that side. Dr. Todd regarded the case as quite remarkable; as there was a fracture of the petrous portion and partial restoration of hearing, it having become a serviceable ear. As regards the facial paralysis he hoped that he would regain control of the muscles, if not perfectly, at least sufficiently to prevent disfigurement. It was interesting that there should be fracture of the skull not at the point of blow, while at the site of the direct injury there was only a slight bruise of the scalp.

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Dr. Spencer asked whether Dr. Todd thought the improvement in hearing was the result of the treatment or spontaneous.

Dr. Todd thought that it was probably spontaneous.

Dr. Spencer said he had seen two or three very similar cases. They were cases where there was little or no indication for treatment except there be some suppurative trouble in the cavity of the tympanum. Of course there would be work for the surgeon to do in that case. Ordinarily where we have such deafness there is little hope for recovery by way of surgical interference or medication. He thought if we do have such a result as occurred in this case it occurs spontaneously. The result in this case was certainly very remarkable and so far as the patient is concerned very satisfactory. He had never observed any improvement in these cases where there had been any high degree of deafness: the deafness had been permanent.

Dr. Todd said that, as regards the amount of relief afforded by the constant current, while he did not attribute the restoration of hearing to it, the patient was troubled with noises in his ear and he thought these noises had been favorably modified by it. Prof. Erb says a good deal can be done in aural disease by electrical treatment, while aural surgeons think that very little can be done as regards the restoration of the function of an injured auditory nerve. Of course he used the current mostly for the relief of the facial paralysis; whether that trouble will be fully overcome or not is another matter.

Dr. Spencer said that he had been exceedingly unfortunate in those cases in which he had used the battery in cases of facial paralysis resulting from injury to the ear. The best results had been those which had occurred without the aid of any treatment whatever. He thought that he had reported a case where there had been spontaneous relief from a very high degree of facial paralysis resulting upon suppurative disease of the tympanum with caries of the bony wall. He treated the patient until that was relieved without paying any attention whatever to this complication, this facial paralysis. After a number of months this had entirely disappeared without having had any treatment whatever directed to the facial paralysis.

Dr. Todd said he thought there was danger of atrophy of the muscles with disfiguring contractions; the muscular contractility must be excited so that when the nerve connection was re-established the muscles should be in condition to respond.

Dr. Hardaway read a paper entitled

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SHALL EVERY CASE OF SYPHILIS BE TREATED BY MERCURY?

Dr. Grindon said that Dr. Hardaway's paper called to mind a chapter read some time ago in a very interesting old book, Abernethy's Surgical Observations. The chapter is headed "On Certain Affections Resembling Syphilis," and he there speaks of a number of cases coming under his observation beginning with true Hunterian sore followed by symptoms which he recognized as those of syphilis. They were followed by roseolar eruptions and certain other mild manifestations, and he says that in these cases no mercury was used, not because the physician having the case under control did not believe in the value of mercury, but he believes because they did not recognize the cases as syphilis. He says that in the course of a short time, a few months, these symptoms disappeared without any mercury, and the cases got well and for a number of years still remained well; and therefore he says they could not be syphilis, because they got well and without mercury. Dr. Grindon thought likely that those were mild cases of syphilis. He related a case that came under his observation last August. An initial lesion was followed after a certain time by well characterized inflammation and roseola and no further symptoms. About a month ago there had still been no further symptoms except some very ill-defined pains at night. The patient, however, had been under the care of another physician who had administered large doses of iodide of potassium,and he had a plentiful iodide eruption which of course, the patient and the physician believed to be manifestations of syphilis.

Dr. Engelmann said that while connected with the Berlin Lying-in Hospital he had the opportunity of seeing a great number of syphilis neonatorum cases. The routine treatment there was a mercury bath, fifteen grains of corrosive sublimate with the ordinary warm bath.

Many cases came under observation,because the disease was very common among the new-born in the out-door hospital practice and certainly very excellent results were had. All classes of cases were under observation from the beginning. From the first development of the sores about the anus and soles of the feet and slight eruptions the remedy was used.

Dr. Eversole asked how soon the eruptions in new born children disappeared after the use of the mercury treatment just mentioned.

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Dr. Engelmann said he thought where there were only a few sores over the body or merely about the anus and on the palms of the hand and soles of the feet, they showed improvement immediately, and would disappear within a week if it was taken in hand at once. The baths were given every morning or perhaps twice a day.

Dr. Mulhall asked if none of those children died?

Dr. Engelmann replied that frequently those cases in which the eruption appeared over the whole body and those which were born with marked appearances of the disease died; but they were mostly affected also with internal syphilis, syphilis of the lungs. The still-born children were most commonly syphilitic, and in these cases the bones were much affected. Upon examination it would be found that the joints and the shafts and extremities of the bone were affected.

Dr. Mulhall asked if these improved under the treatment with mercury, or if the mercurial treatment was pursued with those which were badly affected?

Dr. Engelmann said that the severe manifestations were developed mostly in the internal organs and in the children that were still-born. The development upon the skin was most commonly in the milder forms, or at least the children who lived showed milder forms of the disease upon the skin, and they frequently improved greatly within a week. The children that were still-born frequently exhibited very striking manifestations of syphilis, very characteristic sores.

Dr. Henske said that he formerly used the mercurial treatment in syphilitic eruptions in children; but for the last two years he had given that up for the expectant treatment. He had found the eruptions to disappear as soon without mercury as with it. He had had at St. Ann's Asylum near 100 cases the last six months. When he used the mercurial treatment he found that the children sank rapidly under it, especially if it was necessary to nourish them artificially. Under the expectant treatment they nourish better and the eruptions disappear in two or three weeks of themselves. He had a case of a child two months old where he supposed there was syphilitic lung trouble in one lung; he put the child on mercury and the lung trouble disappeared; but it died a month or two later for want of proper nourishment.

Dr. Love asked whether administering mercury by the month

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interfered with digestion and nutrition, and if that difficulty might not be overcome if the mercury was administered by inunction or bathing.

Dr. Henske said he had tried both plans of mercury treatment and found that if you give mercury internally you interfere with digestion.

Dr. Todd asked if he understood Dr. Hardaway to say that the view at the present time is that syphilis can be thoroughly eradicated from the system.

Dr. Hardaway answered that in his opinion syphilis can be radically cured, for this reason, that we have on record a number of cases which have been observed carefully by competent men who treated the initial lesions and constitutional lesions, and those persons have recovered as proved by the fact that the patients again fell into the hands of the same physicians with the initial lesion and went through the same symptoms. He said that such cases of so-called re-infection were being reported every now and then. The difficulty that surrounds the subject is well known. Papules of the penis are frequently taken for chancres and cases of re-infection are reported in this way. But when men are thoroughly competent and have the patient under charge in both instances and when quite a number of cases of that kind are reported it proves that in the first case the patient must have got well.

Dr. Carson remarked that he had before reported a case, which had been observed by several physicians in this city,of the second inoculation of a gentleman who contracted syphilis in Paris, returned here, was treated in New York, and finally came here, and who had undoubtedly advanced lesions of syphilis. These disappeared after a visit to Hot Springs, and for several years he was entirely exempt, although leading an irregular life,and he presented himself to the doctor with what he pronounced the primary sore of syphilis. He was at first inclined to think that it could not be such, that it was a simple venereal ulcer and did not amount to much. But this was followed by a chill, by fever, by sore throat with mucous patches and all the other symptoms of secondary syphilis, and developed later stages as time progressed. He saw the gentleman frequently, and during the later stages and very serious manifestations he was seen by several other surgeons in the city, who agreed that it was a case of secondary inoculation.

Dr. Tuholske said he had a patient now living in the city who

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had the initial lesion followed by the ordinary secondary manifestations which healed readily. Two years after the disappearance of the secondary manifestations he had severe attacks of periostitis of the tibia, sternum and frontal bone, suffering acutely at night, leaving no manner of doubt as to the nature of the disease. This patient eighteen months ago contracted syphilis again. The sore upon his penis was followed in due time by a secondary eruption of roseola, then by deep and destructive ulceration of the forehead, then by intense nervous disturbance with hemiplegia, and the patient was now hemiplegic and had been for several months. This second attack was treated in the same way, and he was living under the same conditions as before, and yet it was even more severe than the first attack. There seemed to be nothing like the relation existing between second and first attacks of syphilis as between second and first attacks of small-pox, in which the system is to a certain degree protected. The patient who has had syphilis once and contracts the disease again may have as bad an attack as the first, or even worse.

Dr. Leete asked if there was anything to show that when one has once had syphilis running through its several stages and has apparently recovered, and again has the initial lesion he surely will have the disease in a severer form than before, as it runs through its several stages, or if it is not generally milder in form than before.

Dr. Carson said that in the case that he mentioned the secondary lesions were much milder than in the first attack.

Dr. Tuholske said that he had no extended experience of such repetition of the disease and he did not know that the question had ever been thoroughly looked into whether second attacks of syphilis are more severe or not, but thought probably the majority of them are not so severe as the first attack.

Dr. Hardaway had never seen a case of re-infection himself, but thought the literature did not lay any particular stress upon the fact at all.

Dr. Mulhall asked whether Dr. Hardaway considered the fact that a man had healthy children proof that he had been cured of syphilis.

Dr. Hardaway thought not, as there are plenty of instances where men beget one healthy child and then a syphilitic one, then a healthy child and then a syphilitic one.

Dr. Mulhall said that he gathered the impression from Dr. Hard-

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away's paper that he was of the opinion that the advanced syphilographers of the present day say that mercury is absolutely of no use except in the treatment of a lesion as such.

Dr. Hardaway said that was the opinion of a very small minority.

Dr. Leete asked if Dr. Hardaway intended to leave the impression that the evidence was abundant that syphilis is really cured, that the system is purged of the specific poison of syphilis.

Dr. Hardaway said the recorded cases were very few yet. But the possibility of such a thing was until recently scarcely considered. He himself thought that such a thing very rarely occurs.

Dr. Carson took exception to the view that mercury and iodide of potassium would cure all lesions of syphilis. He said he had seen some cases which refused to respond to either of them, and had such a case under treatment now.

Dr. Hardaway repeated that he did not regard iodide of potassium as invariably a specific, only in a general way.

Dr. Schenck said this was out of his line; yet he had seen a great many cases during his connection with the Health Department of the city, and his idea of syphilis might differ somewhat from Dr. Hardaway's. He was strongly impressed with the idea that syphilis is nothing but an exanthematous disease, lasting longer than the other exanthematous diseases,but of the same character in reality. He had been taught that certain eruptions were peculiar to tertiary syphilis, while other symptoms were peculiar to secondary syphilis; but he had seen everything in the way of eruption in secondary syphilis that used to be thought eruptions of tertiary syphilis. He had seen rupia in what might be spoken of as hasty syphilis following soon after the initial sore. He said he did not believe that tertiary syphilis is syphilis at all, any more than he believed that disease of the middle ear following scarlet fever is scarlet fever. Furthermore he did not believe that tertiary syphilis is communicable as syphilis. He doubted whether there was any specific action to prevent their formation. As to the question whether it is curable or not, he had seen at the hospital marked cases indicating plainly to his mind that, whether we may or may not cure it, it is to a certain extent limited, and that a person who has an initial lesion and goes through the different courses or stages of syphilis is protected from a second attack as much as one who has small-pox is protected from a second at-

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tack of that disease. Both diseases seem to leave an impression behind which to a certain extent renders the patient exempt from a second attack.

Dr. Glasgow called to mind a case that made a marked impression on him in his student days at Vienna. It was that of a woman who had been in the hospital twenty years before with a primary lesion followed by all the secondary symptoms. She had been in the syphilitic wards that were afterwards occupied by Siegmond and had been discharged and put down on the record books as cured. She came back, however, whilst he was there. When she came in the second time she had a large destruction of the parietal bone. It was considered a case of tertiary syphilis, and she stated that she had been in perfect health up to the time that this destructive process in the head had commenced.

Dr. Tuholske said in reply to Dr. Schenck that the division of syphilis into primary, secondary and tertiary syphilis and sequelæ was simply a matter of clinical convenience, there was no difference pathologically. These divisions were made simply to get the various manifestations under distinct heads and groups; those brought together which have been considered as specially amenable to treatment by certain drugs, and nothing more. Hence we need not be astonished to find that some patients have periostitis early any more than that some of them have rupial eruption as one of the very first eruptions, which is not a very uncommon circumstance. As to the non-specificity of tertiary syphilis it was not easy to determine; but in his judgment there is no one thing more certain than that when a patient has true syphilis the manifestations that we have been in the habit of calling secondary or tertiary, where there is simple infiltration of the superficial tissues that are absorbed or where there are infiltrations of the deeper tissues that go on towards destruction, the disease is the same.

As to the use of drugs in this disease whenever there is some brain or nerve trouble, in other words, where some organ is affected whose destruction will lead to most serious results, there is no question that a remedy is indicated which will most rapidly produce absorption of the gummata; and of the two drugs that do this most rapidly he preferred the iodide of potassium. But in order to effect a permanent cure and a return to a condition more near the normal he thought mercury necessary. Syphilitic epilepsy was undoubtedly more readily curable than idiopathic epilepsy. Those

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who have had the largest experience and who have paid most attention to this subject are of the opinion that when we meet with a case of syphilis that shows no destructive tendency it is well not to administer mercury until the secondary manifestations occur; for there can be no doubt that administration of mercury in the early stage of the disease retards and so modifies the secondary lesions that they may be uncertain in their appearance and much harder to relieve afterwards. Of course in the case of a married man who has a chancre on his penis it is necessary to administer something that will as rapidly as possible produce cicatrization,and mercury is the thing that will do that most rapidly; but otherwise we should administer no mercury in the early stage. There is any number of patients who do not have tertiary manifestations. Among those suffering from slight effects of the disease some would get better on ordinary tonic treatment such as codliver oil, some change of climate or a good nutritious diet. Some of them, however, on such a treatment as this, would continue to get worse and some would even grow worse under the use of iodide of potassium or mercury or both combined.

Dr. Carson asked if Dr. Tuholske believed that mercury will effect a rapid removal of the primary sore.

Dr. Tuholske said that just as soon as there is glandular enlargement the mercury will hasten cicatrization.

Dr. Hardaway said that Dr. Tuholske had so perfectly and logically answered Dr. Schenck that he could merely endorse what he had said with regard to the grouping of the various manifestations. Looking upon syphilis as an exanthematous process Dr. Schenck agreed with Jonathan Hutchinson, but this was purely a theoretical matter. For himself he believed that in cases where there is a mild roseolar, papular eruption more good can be gotten from expectant treatment than from the use of mercury either in very small doses or in heroic doses. Of course he had not lived long enough to determine this for himself in any great number of cases but he thought that statistics would bear this out. He thought that where there is prolonged mercurialization the results are not as good as where the physician has refrained from its use, where there was no urgency of symptoms requiring the use of the drug. Of course whether mercury has a tendency to eliminate the poison from the system is a very serious question and one he could not answer, but he did know that there are cases of syphilis that

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have been treated thoroughly and systematically with the drug which go rapidly to tertiary manifestations.

MURIATE OF COCAINE.

Dr. Schenck reported a case in which he had used muriate of cocaine hypodermically for morning sickness. He said that it was not an original idea with him but about the middle of January Dr. Bauduy while testing the muriate of cocaine at St. Vincent's asylum in certain nervous diseases, had given a hypodermic injection of one grain of the salt to ten minims of water. The patient after the injection said to the doctor that he felt great distress in his stomach, attributing it to the fact that he had eaten a very large meal. The doctor directed that he use lukewarm water in order to act as an emetic which the patient did, and it only increased the distress. He then directed that lukewarm water and mustard be taken, and this only increased the discomfort. The doctor then gave the patient two ounces of wine of ipecac and this entirely failed to produce any effect upon the stomach. The doctor then determined to empty the stomach if possible,and gave three drams of alum, which had no effect whatever. He then waited for some twenty or thirty minutes and gave him more of the alum, and the patient was still unable to empty anything from the stomach at all. Then the doctor directed the patient to take largely of warm water again, and tried every other remedy that he could think of, making every effort to empty the stomach by manipulation etc., and his efforts were absolutely in vain; it was utterly impossible for the man to vomit. Having stated this case to Dr. Schenck,the latter had concluded that there must have been paralysis of the muscular coat of the stomach by the cocaine and stated so. The doctor thought the drug must have affected the pneumogastric nerve or some of the auxiliary muscles used in vomiting. The next day the patient was taken with quite a profuse diarrhea. In the early part of February Dr. Schenck said he was called in consultation as to the propriety of bringing on premature labor in a patient who was very much prostrated from excessive vomiting. Nearly everything had been tried. He suggested the tincture of iodine with carbolic acid, but that failed entirely. They had repeatedly used rectal alimentation in order to sustain life. Dr. Schenck said that he had always been opposed to bringing on labor on account of morning sickness. He had never seen a patient die of exhaustion from morning sickness. He

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had had patients out at the hospital upon whom he thought in the morning he would be compelled to bring on labor, but a change took place before night and they got along without. He suggested in this case the hypodermic use of muriate of cocaine. We gave the patient one grain in ten minims of water. He ordered two injections a day. She was much relieved by the first, felt somewhat better, and the vomiting was less. The second was given her in the evening, and during the night the vomiting ceased. The next morning he gave a third injection, and on the following night the nausea ceased. She was able to retain milk and a little water, although there was complete anorexia. A second case of very much the same character,although not so clear as the first, refused to be relieved by any application but, singular to say, this most persistent vomiting ceased on the second day. The muriate of cocaine has been used in various ways for this purpose but he thought that Dr. Bauduy's recommendation was the first in reference to the hypodermic use.

Dr. Love said that in a recent issue of the *Journal of the American Medical Association* there was an abstract from a German medical journal recommending the use of the muriate of cocaine for vomiting in pregnancy. He thought it was recommended to be used hypodermically. The theory was that it produces paralysis of the nerve centres presiding over the ability to empty the stomach. Some years ago at the City Hospital an old man by mistake took a bottle containing 480 grains of chloral. Every effort was made to relieve the stomach. They gave him every emetic known, and he seemed to enjoy them. After several hours working and watching they concluded that he would likely pull through any way, and if they did not stop, the man might die of gastritis later. So they discontinued efforts to make him vomit. He had diarrhea the next day. Reasoning from that case and on general principles he believed chloral to be quite as good for vomiting in pregnancy as muriate of cocaine. Having had a talk with Dr. Bauduy who was somewhat enthusiastic in reference to the muriate of cocaine, he used it in a case of a gentleman just recovering from a debauch. He gave a hypodermic injection of one grain on the morning following a bad night, and it had no effect whatsoever in relieving the vomiting. It had no effect in quieting or soothing or stimulating him, and he had to resort to the hypodermic injection of morphia. He was disposed to believe that when the new drug

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had been fully tested and had reached its proper valuation in the materia medica it would be found to have comparatively little merit aside from its local anesthetic properties.

Dr. Schenck said that in the removal of a urethral caruncle, a most painful operation, he had used a four per cent. solution of cocaine, and it absolutely failed to relieve the pain. He had to place the patient under an anesthetic in order to relieve the pain. In the next case that he had tried it upon, the remedy acted with perfect success.

Stated Meeting, March 24, DR. P. G. ROBINSON in the Chair.

DR. P. V. SCHENCK.

The committee appointed at a special meeting to draft resolutions *in memoriam* of Dr. P. V. Schenck presented the following, which were on motion adopted.

WHEREAS, We have been called together to give expression to our sorrow for the sudden and untimely death of our friend and fellow-member, Dr. P. V. Schenck, who by his uniform courtesy and urbanity had gained for himself our esteem and friendship; by his untiring energy and industry full recognition of his worth from the members of the Medical Profession, not only of this Society, but throughout the city, the state, and the whole country as well; who, by enthusiastic devotion to his professional duties, and by his well educated and practical skill, had attained a high degree of success; and who, by his gentle and painstaking care had justly earned the affectionate regard of his patients, and so had insured for himself not only a prominent and even conspicuous position among the foremost physicians of the day, but also a fair propertion of the substantial rewards which the practice of medicine may bring. Therefore be it

Resolved, That in the premature death of Dr. P. V. Schenck our Society has lost a courteous and estimable friend as well as a learned and ever active member, the profession a skilful and practical physician, and the community an honorable and useful citizen:

That we mourn with those whom he loved, and we mingle our tears with those whom he held most dear; and to the widow and the orphans we extend our heartfelt sympathies and condolence; and further

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Resolved, That a copy of these resolutions be transmitted to the bereaved family and be published in the medical journals and daily papers of the city.

[Signed] P. GERVAIS ROBINSON,
J. B. JOHNSON,
C. E. BRIGGS,
H. TUHOLSKE,
H. N. SPENCER,
Committee.

MALIGNANT DISEASE OF ANTRUM.

Dr. T. F. Prewitt in lieu of a paper presented two specimens of malignant growth in the antrum of Highmore which he had recently removed. The first case was that of a woman aged 68 years who first consulted him last summer, having then an enlargement of the upper jaw. Just below the orbit there was an opening through which a probe could readily be passed to the bottom of the antrum. There was a general fulness of that side of the face. He only had opportunity for a casual examination at that time and the woman was not seen again for several months. In the meantime another surgeon had been consulted, and he had made an incision and removed a part of the growth. This had returned, however, and last month the woman returned to Dr. Prewitt. At that time the opening below the orbit was still discharging, the bone seemed to be absorbed and the eye was pushed up and protruded. The skin over a part of the tumor seemed unhealthy, but not infiltrated as in cases of carcinoma. Dr. Prewitt made an incision from the border of the lip along the side of the nose and close to the margin of the lid, and dissected back the flap so formed. Cutting through the hard palate with pliers and sawing the malar bone with a chain saw he removed the mass which had caused the distension. The bone, including the alveolar process, had been almost entirely absorbed. He removed the floor of the orbit and a considerable amount of tissue back to the spheno-maxillary fissure. There was very little hemorrhage. In fact he did not find it necessary to apply a single ligature. He found it necessary to remove also a considerable portion of unhealthy integument, and in order to supply the place of this he had raised a flap from the skin farther back and brought it forward to form a new covering for the cheek and lower lid. his had not been made quite large enough and consequently there

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had been a small portion along the inner part of the lower lid which had not united by first intention, but was healing nicely by granulation. The surface from which the flap had been taken was also granulating satisfactorily. A day or two before he had noticed a flow from this surface of a fluid like saliva, and he thought it probable that the duct of Steno had been cut in making the flap, and that a salivary fistula would be left when the wound healed.

The second case was that of a woman æt. 47, who also was first seen last summer. Last December she first noticed a discharge from the nostril—not specially offensive—and this had continued ever since. The nostril had never been blocked up so as to obstruct respiration through it. A prominence had formed on the outer side of the upper jaw inside the cheek, which was regarded as a gumboil, and was lanced as such. Nothing escaped save a little blood. On introducing the probe it passed without resistance nearly to the eye. The floor of the orbit was pushed upward, and the woman had diplopia. Dr. Prewitt regarded the growth as malignant, and March 5 he removed it. Inasmuch as the incisor and canine teeth were not involved in the growth, he had made his incisions with a view to preserving them, cutting from the angle of the mouth along the side of the nose and along the border of the lid, and turning back the flap so raised; then cutting through the alveolar process and hard palate with a chisel. He then broke down and removed the morbid growth. The posterior wall was nearly all absorbed, and he tore away the tissue with his fingers, up to the floor of the orbit, and back to the spheno-maxillary fossa nearly to the base of the skull.

The patient had been a good deal run down, but there were no symptoms of cachexia. Still he was well assured of the malignant character of the growth, although no microscopic examination had yet been made of the mass removed.

[TO BE CONTINUED.]

DIPHTHERIA, CROUP AND TRACHEOTOMY.—J. H. Chambers & Co., Medical Publishers, St. Louis, announce that they have in press a translation of Sanné's treatise on these topics. Dr. H. Z. Gill, formerly of St. Louis, has made the translation, and has added also the results of recent American experience and practice, so that the work as presented will be a valuable monograph. The volume will be ready for issue next month.

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SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.

The seventh annual meeting of this association of sanitarians was held in the city of New Orleans on Tuesday and Wednesday, March 10 and 11, 1885, at the rooms of the Lousiana State Board of Health, representatives from boards of health in eleven different states being present.

Dr. Joseph Holt, president of the Louisiana State Board of Health, welcomed the Council on behalf of his board and of the city of New Orleans in a brief address which referred especially to the importance of efficient measures being adopted with reference to quarantine at the mouth of the Mississippi, and recognizing the common interest of all the Mississippi Valley states in this matter, and the special responsibility of the state of Louisiana as holding the keys at the gateway.

The Secretary, Dr. John H. Rauch, in his annual report congratulated the Council on the general prevalence of good health in the territory represented in the Council.

He suggested that a committee be appointed to formulate measures which should be adopted and carried out by the Council in the event that action becomes necessary through the appearance of Asiatic cholera at any point in the Valley, and specified some particulars which such report should embrace.

He also suggested that a communication be addressed to the chairman of the Committee on Disinfectants, appointed at the meeting of the American Public Health Association, requesting that a plain, practical paper, on disinfection and disinfectants, for popular use and distribution, be furnished to the executive committee of the Council, and that the committee be instructed to procure its immediate and widespread publication.

He mentioned that the Illinois State Board of Health was pushing a sanitary survey of the entire state, which, in the state outside of Chicago, would cover 330,000 houses. He hoped that by the middle of May this inspection would be finished and the sanitary defects and evils thereby disclosed would have been remedied, nuisances abated, and the whole state put in the best possible condition to resist cholera, yellow fever and all other epidemic contagious and infectious diseases.

A contingency appropriation of $85,000 had been asked from the General Assembly to be used in quarantining, inspecting, disin-

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fecting, caring for cases of epidemic and contagious diseases, etc., at twenty-four different points of entrance of important railroad lines along the eastern and southern boundary of the state, and at the necessary points on the Ohio and Mississippi rivers, as well as for defraying the expense of the necessary measures for preventing the spread of such diseases from point to point within the state, should they or any of them be introduced.

These two measures—the sanitary survey and the state quarantine—would, if successfully carried out, render Illinois practically independent of outside assistance or co-operation. But while protecting her own borders she was ready and willing, he said, to aid and co-operate with others, and to do at least her full share in protecting the health of the Valley. Such protection he believed required the formulation of a definite plan of action for the Council in the event that Asiatic cholera should make its appearance in the country; popular instruction and information concerning the measures which should be at once instituted in order to prevent such introduction, or to limit its spread; the vigorous prosecution of these measures as soon and as long as the weather would permit; and guarantees from the representatives here present of concert of action and mutual co-operation on the part of their respective organizations, so as to inspire public confidence in the work of the Council and of health authorities everywhere throughout the Valley.

Such confidence he considered one of the most valuable factors in preventing an epidemic, especially a cholera epidemic, toward which fear is one of the most potent predisposing causes.

In accordance with Dr. Rauch's suggestion a special committee was appointed consisting of Drs. Kedzie, Holt, Chaillé, Rauch, Robertson, and the president, Hadden, to formulate an expression of the views of the Council concerning the measures necessary to the exclusion of Asiatic cholera and yellow fever from the Mississippi Valley, and the limitation of their spread should they be introduced.

The practical points contained in this report, which was presented on the following day, were a recommendation that:

"The Sanitary Council of the Mississippi Valley earnestly petition the honorable Secretary of State that he cause the consuls and consular agents of all ports from which ships clear for the United States to furnish not only the usual information embraced

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in bills of health, but all particulars in regard to the existence of contagious, infectious or epidemic diseases, which may endanger the public health by importation through vessels reaching our shores; that the Council petition the honorable Secretary of the Treasury to place a revenue cutter at the mouth of the Mississippi river to prevent the entrance of all ships infected with cholera or yellow fever and to send them to Ship Island, or other refuge station, for quarantine and purification.

If, however, an infected vessel, or one suspected to be infected, enters the Mississippi river, the committee recommended that the State Board of Health of Louisiana should remand such vessel to a station of detention and absolute isolation until all danger of the spread of the disease from ship, cargo, crew and passengers has been entirely removed; the ship to be thoroughly cleansed and disinfected; the cargo and baggage thoroughly disinfected, and the crew and passengers kept under observation until free from all suspicion of danger to the public health.

The committee further recommends the Council to petition the President of the United States to immediately convene the National Board of Health, and authorize its use of so much of the epidemic contingent fund as may be necessary for preparing and promptly enforcing a vigorous system of preventive measures in co-operation with, and in aid of, state and local health organizations with especial reference to Asiatic cholera.

Recognizing that the first condition of concert of action among health officers is mutual confidence, and that this can be secured only by early, full and free information of all the essential facts at points of outbreak, it was recommended in the form of a resolution: That each and every health organization represented in this Sanitary Council hereby pledges itself to promptly furnish to every other organization all information in regard to the appearance of cholera and yellow fever, or suspicious cases of cholera or yellow fever.

The committee recommended that the following groups of symptoms shall be considered to indicate yellow fever and suspicious cases:

I. Groups of Symptoms which shall be considered to indicate Yellow Fever.

Group 1.—A person, after a sudden attack, has a fever of one paroxysm, attended with marked congestion or blood stasis of cap-

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illaries of surface, conjunctivæ and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever.

Group 2.—A person, after a sudden attack, has a fever of one paroxysm, followed by unusual prostration, albuminous urine, yellowness of conjunctivæ and skin, and having no positively authenticated history of a previous attack of yellow fever.

Group 3.—A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, general hemorrhagic tendency, under circumstances where exposure to infection is a possibility.

II. Suspicious Cases of Yellow Fever.

The following symptoms associated with a fever of one paroxysm, in a patient who has apparently been exposed to infection, and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease, viz.:

1. Suddenness of attack, either with violent pain in the head and back, injected eyes and face, or with marked congestion of the superficial capillaries.
2. Want of that correlation between pulse and temperature usual to other forms of fever.
3. Albuminous urine.
4. Black vomit.
5. General hemorrhagic tendency.
6. Yellowness of the skin.

The following cases shall also be deemed suspicious:

7. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever.
8. Any case respecting which efforts are made to conceal its existence, full history and true nature.

In the event of death of a suspicious case a post-mortem examination should be made when practicable. Both before and after death, yellow fever is especially and pre-eminently characterized by the fact that it is, *par excellence*, a hemorrhagic fever, marked by capillary congestion and its sequelæ; hence post-mortem evidence of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion.

The following conditions shall be held to justify a suspicion of Asiatic cholera, and to require from sanitary authorities the same preventive treatment as if known to be cholera:

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1. Any case of disease resembling cholera and attended with "rice-water evacuations," shall be reported and treated either as cholera or as a suspicious case.

2. Any case respecting which reputable and experienced physicians may disagree as to whether the disease is true Asiatic cholera or not, shall be reported and treated as suspicious.

3. Any case rumored to be cholera, and respecting which efforts are made to conceal its existence, full history and true nature, shall be reported and treated as suspicious.

4. Any notable and exceptional increase in the number of cases of, and of deaths by, such bowel disorders as cholera morbus and diarrhea, shall be promptly reported.

The report was received, adopted as a whole, and the Secretary was instructed to prepare and transmit the several petitions recommended in the report.

The various states represented in the Council were then called upon to furnish the meeting, through their delegates, with a report of the sanitary work being performed by them.

At the evening session, Wednesday, the following named gentlemen were unanimously elected officers for the ensuing year:

Pinckney Thompson, M. D., of Henderson, Ky., President; Joseph Holt, M. D., of New Orleans, La., Vice-President; John H. Rauch, M. D., of Chicago, Ill., Secretary and Treasurer; W. H. Watkins, M. D., of New Orleans, La., Assistant Secretary.

Dr. Rauch (Ill.) moved that the various petitions, addresses, etc., called for in the report of the formulating committee be prepared and signed by the Executive Committee, consisting of the President, Vice-President and Secretary. It was so ordered.

The usual complimentary votes of thanks were passed and the Seventh Annual Meeting of the Council adjourned.

PHYSICIANS' PRESCRIPTIONS.—In an analysis of 1,000 consecutive prescriptions at a drug store in Winona, Wis., it was found that 2,794 ingredients were used. The largest number of ingredients in one prescription was fourteen. Seventy per cent. (nearly) of the prescriptions consisted of fluids. Quinia sulph. was contained in one hundred and seventy-three prescriptions. Compound syrup of yerba santa was the most popular vehicle for the administration of quinine, appearing in one hundred and five of those prescriptions.—*Northwestern Lancet*, April 1, 1885.

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FOREIGN CORRESPONDENCE.

LONDON LETTER.

A TEACHING UNIVERSITY FOR LONDON.—FATAL BICYCLE ACCIDENT.—CHRONIC AND ACUTE DIABETES.—DANGERS TO MEDICAL OFFICERS.—RENTS.—CAVENDISH SQUARE.—MEDICAL STUDENTS' CLUBS. — ANTI-VACCINATION DEMONSTRATIONS.

LONDON, April, 1885.

During the past two or three months the chief subject which has interested the medical world in London has been the establishment of what is called "a Teaching University for London" with the object of enabling the metropolitan medical students to obtain a degree on easier terms than the one at present granted by the London University as now constituted. The Metropolitan Counties Branch of the British Medical Association appointed a sub-committee last year to consider the subject, and has recently published a report which has been extensively circulated. In this report attention is drawn to the fact that the number of students entering the London medical schools has decreased. Whereas in 1879 it was 731, in 1883 the number was 603, whilst the entries at the Scotch medical schools had increased and in 1883 were 596. It also shows that only between 6 and 7 per cent. of the medical practitioners in England hold English medical degrees. That about 25 per cent. hold Scotch degrees. But that in Scotland 70.6 per cent. of the medical men hold degrees. The report also points out that the medical education given in Scotland is not better than that provided by the English medical schools, as is shown by the result of examinations when students from both sources compete against each other. It is therefore very evident that the Scotch degrees are granted much too easily, and many English students proceed to Scotland for the purpose of obtaining them. The alteration advocated by the supporters of "a Teaching University for

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London" is to enable students to obtain in England a degree as easily as they can in Scotland or Ireland. It is quite evident that mercenary motives are at the bottom of the whole movement, and not the interests of the public or a sincere wish to elevate the profession. The report commenced with the statement that the title of "doctor" has been associated in the public mind from time immemorial with a higher status of professional education, and it then goes on to advocate that it should be given to those possessed of only average ability. Because other universities in the United Kingdom have to a certain extent deceived the public by giving their degrees to every man of average ability, or even to those below the average, it is advocated that the London University shall follow suit. The difficulty the public has now in distinguishing men of "higher professional education" is to be increased by the wholesale distribution of the higher title. And this is to be done with the avowed object of keeping the medical students in London and thus insuring the teaching fees to those connected with the London Medical schools. The more dignified course for the profession in London to have followed would have been to support the measures proposed in the Government Medical Reform Bill which has been before Parliament during recent sessions and which provided for a minimum professional examination in the three divisions of the kingdom and reserved the degrees granted by the Scotch and Irish and other universities as higher qualifications to be obtained by additional examination; and under such circumstances would only be sought for by those anxious to enter the higher walks of the profession. This would lead to a smaller number of university degrees being granted in Scotland and Ireland, a result which was feared by those countries and which stimulated their opposition to the Government Bill.

Year after year the cry becomes louder and louder from the general practitioners in large towns, of the inadequate and unsuitable education of our medical students. How can it be otherwise when all the time devoted to medical education is absorbed in cramming for examinations and investigating interesting cases and the scientific aspects of physiology and pathology? The young teachers themselves have never been engaged in general practice; in many instances have never had the sole responsibility of treating a single patient. When their students reach the country or commence the real business of the profession they are found to be

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profoundly ignorant. The first thing a medical man has to do when he engages a new assistant straight from the school is to teach him to recognize and treat the most simple ailments. The result of the teaching of the London University and the attempt to raise all teaching to the same scientific level is to force more and more the practical duties of the profession into the hands of the chemists and trained nurses. How can it be expected that medical men will give higher salaries to assistants when they have to teach them the very rudiments of practice,and whom they find of less use to them than their unqualified assistant or dispenser? The unqualified assistant has not been contaminated with the teaching of the schools and knows how to manage and treat a patient with much greater satisfaction both to the patient and to his employer, and he does not feel or consider the ordinary routine and duties of practice beneath him, as is almost invariably the case with his qualified competitor. A return to some such system as the old pupilage or apprenticeship is urgently called for.

A most interesting bicycle accident occurred last month at Cambridge to one of the undergraduates, a member of Trinity College. Unfortunately it had a fatal issue. The subject of the accident was a young baronet, Sir John Aylmer, who was in his third year of residence. He had been suffering for some time from diabetes. When thrown from his bicycle he was at first stunned but soon recovered and was removed home to his rooms. No bones were broken, but two days later he fell into a comatose state and never rallied. An inquest was very properly held by the coroner, although it was against the wish of the medical man in attendance, who had certified that the death had been caused by acute diabetes. It is well known that irritation of the floor of the fourth ventricle will produce diabetes, and cases are on record where injury to the head has been followed by a similar result. It is not at all improbable that the blow on the head received by the young baronet, at the time suffering from chronic diabetes, produced the acute attack of which he died. Some years ago a great outcry was raised in the public press against one of our metropolitan police surgeons who had refused to give sick leave to a constable who had suddenly been seized with illness and who a few hours later was found in a comatose condition on his beat, and shortly afterward died. It was then ascertained that he had for years been subject to chronic diabetes which had suddenly assumed an acute

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state, and he died from what is now called "acetonemia." These occurrences show the necessity there is for the greatest care being taken with persons brought into our hospitals in an insensible condition and the advantage in such cases of always examining the condition of the urine. The multiplicity of risks that a young medical officer runs of making some mistake with the serious accidents and cases of illness daily brought to our hospitals ought to make the public more lenient when unfortunately such a mistake does occur, and more ready to recognize the great care which in most instances is taken and which prevents mistakes being more frequent. The sensational articles in the ordinary newspapers on occurrences at the hospitals are often very damaging to the medical profession, and the young house physicians and house surgeons during their term of office are always in jeopardy of having their reputations blighted, at least for a time. No notice is taken of the daily services they render to the public by their attendance on innumerable accidents and cases of sudden illness, but should they unfortunately send a case away for want of a vacant bed, or if from any cause a patient should die soon after application to a hospital, the newspapers are most severe upon the medical officer who may have seen the patient, and the institution itself is held up to the reprobation of the public. Under such circumstances the hospital authorities should insist upon a thorough and fair investigation of the case, and do all in their power to defend their medical officers who do so much for the people for very scanty remuneration.

England at the present time and for several years past has been suffering from extreme commercial depression. All classes of the community have suffered in a greater or less degree. Up to the present time the medical profession has suffered less perhaps than others, and for obvious reasons; but medical men have equally with others experienced a reduction in their private incomes derived from sources not professional. This depreciation in value of all classes of property has seriously affected house rent in London except in those quarters monopolised by particular callings. For instance, the rent of residences in the district chiefly inhabited by consultants in the neighborhood of Cavendish Square, has not been reduced, or if at all very slightly. The rents asked for good professional residences in this quarter of London is still almost incredible and is likely to be maintained, as from various reasons

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medical men show a tendency to congregate within a very limited area. The rents are far in excess of the means possessed by the greater number of the young hospital physicians and surgeons whose incomes are generally very limited, and they have to meet the demand by resorting to various expedients such as letting off a part of their houses, taking in pupils or resident patients, or sharing their houses with other medical men not engaged in exactly the same branch of the profession. This system of underletting has lowered the character of the streets occupied by medical men as far as their social reputation is concerned, and in some streets landlords are now refusing to let houses to doctors. This necessarily drives them more and more into those streets where no such limitation exists. In the streets abutting on Cavendish Square, namely, Harley street, Wimpole street, Queen Anne street and Welbeck street, etc., nearly every other door bears the name of some medical man. This is always a matter of surprise to those not conversant with the various influences at work which produce this result.

Several attempts have been made in London during the last few years to establish clubs for medical students that have generally ended in failure. This result has been brought about by several causes the chief being the pecuniary difficulties, as medical students are not a rich class and it costs something considerable to keep a club going in London. Another cause of failure has been the effort which has always been made to make the club acceptable to the noisier class of students, by this means hoping to win him from the refreshment bar, the music hall and the billiard table. The stringent rules therefore in force in most similar institutions have been somewhat relaxed with the result of preventing the best class of students joining and the ultimate collapse of the undertaking. What is really required by the medical students of London is an institution similar to the Union Societies so successfully established in most of the universities. In these societies a large room is set aside for a weekly debate on some subject chosen by the committee. The room at other times is used as a reading room for newspapers. There is usually also a library, a magazine room, a writing room, a smoking room. Light refreshments such as tea and coffee are provided, but no intoxicating liquors allowed on the premises, or any billiards, or games of chance permitted to be played. The management of these societies is in the hands of the

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students themselves with generally one or two or their teachers who allow themselves to be made trustees and who hold themselves responsible for the funds. Some of the London hospitals are now forming distinct clubs for their students where facilities are afforded for procuring luncheons. In some instances these clubs show promise of being self-supporting.

At the end of last month a most extensive demonstration was made in the town of Leicester against the Compulsory Vaccination Acts. It is supposed that more than 20,000 persons took part in the demonstration. The opponents of the Vaccination Acts paraded the town with bands and banners, wagon loads of unvaccinated children were drawn through the streets, and five thousand householders who had suffered fines and imprisonment for resisting the law occupied a conspicuous position in the procession. On assembling in the market place the effigy of Jenner was burnt amid the execration of the surrounding populace, and a copy of the obnoxious acts was also condemned to the same fate. Loud and excited speeches were made denouncing the tyranny of the legislature, and the bigotry and despotism of the medical profession. The medical journals are most irate with Leicester. But why not let it go its own way? Once before three hundred deaths have occurred in Leicester during one year. It now relies on its sanitary arrangements and the facilities it possesses for isolation, to cope with any outbreak which may occur. The rest of the country can virtually protect itself against Leicester, if the *Lancet* is right; for it says, remarking on this anti-vaccination demonstration, "It is not necessary to maintain that vaccination is an absolute protective against small-pox, though few things are more clear than that it is so, if rightly used and at least once repeated." But later on the *Lancet* seems to doubt the virtues of vaccination for it goes on to say: "If Leicester could keep all its small-pox to itself, there would be some show of reason in its demand for exceptional legislation; but it cannot do so; and it is a poor prospect for the future if civil and religious liberty is to include the liberty to have small-pox and to spread it in all directions throughout the country, leaving its victims and other dependents to the mercy of the state." Such modes of argument are readily seized upon by anti-vaccinationists. Vaccinated England fears unvaccinated Leicester—how much then for the lauded protective influence of vaccination.

E. V. A.

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COMMUNICATIONS.

PROLONGED GESTATION.[1]

NORWICH, CONN., April 14, 1885.

DEAR DOCTOR.—Your favor of the 14th inst. is at hand, and in regard to the case of prolonged gestation I will give you the facts as I was able to find them. Mrs. W. was a sufferer from chronic ovarian congestion, or what not, with some endometritis. I had told her that the one thing which, to my mind, offered a chance for permanent relief was conception. I therefore dilated the cervix, and told her that in February I was going to leave her alone and see if she could not become pregnant. During January she visited the office on the 3d, 8th and 11th and was treated locally. On the 14th she commenced to menstruate. It usually lasted five or six days. On the 23d she again visited the office and I presume that I then dilated the cervical canal. On the 25th she had connnection with her husband. As I find the record of seven visits at her house between that time and February 11, I judge that she was not in very good shape during the menstrual month. As I had told her to be continent, I did not think of her having conceived, when I was called on February 11, and gave her some simple remedies. But when Monday the 12th came and no appearance of the flow, I remarked to her "See here! If you had been exposed I should suspect that you were in the family way." She replied "I guess not, but we had connection once since I was unwell before." She had previously told me that connection was very painful. Afterwards she insisted that the one connection was all that they had indulged in during the menstrual month, even when I was endeavoring to account for the length of gestation. The pregnancy was full of ailments of various kinds and I do not think she knew a well day for the ten months.

Labor came on November 21, about 6 A. M., and I saw her after breakfast and at various times during the day. The first stage lasted fifteen and a half hours. The second stage but an hour and a half. The child was a female and was puny, weighing seven and a half pounds, but it was the largest child that I ever remember to have delivered. It looked to me as though it was over time. The mother had retained placenta, which I took away manually after forty minutes. The next day she came down with peritonitis, which lasted ten days and then she made a good recovery. The child was always puny and at the age of three months contracted pneumonia, from which it died. The mother has been perfectly well ever since.

If I can give you any further information I shall be pleased to do so. I think you will agree with me that the child was carried 300 days from the time of conception, if we can ever believe any of our patients. Yours truly, L. B. ALMY.

1. We take the liberty of printing in full this personal communication kindly responding to inquiries addressed to Dr. Almy concerning the case noted at p. 434—[ED.

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NOTES AND ITEMS.

NINTH INTERNATIONAL MEDICAL CONGRESS.

The following rules for the session to be held in Washington, 1887, are officially announced:

1. The Congress will be composed of members of the regular medical profession, and of such persons as may be specially designated by the Executive Committee, who shall have inscribed their names on the Register of the Congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose.

The American members of the Congress shall be appointed by the American Medical Association, by regularly organized state and local medical societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynecological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association; each of the foregoing Societies being entitled to appoint one delegate for every ten of its members.

The members of all special and subordinate Committees, appointed by the General Committee, shall also be entitled to membership in the Congress.

All Societies entitled to representation are requested to elect their delegates at their last regular meeting preceding the meeting of the Congress, and to furnish the Secretary-General with a certified list of the delegates so appointed.

2. The work of the Congress is divided into nineteen sections, as follows, viz:

1. Medical Education, Legislation, and Registration, including methods of teaching, and buildings, apparatus, etc., connected therewith. 2. Anatomy. 3. Physiology. 4. Pathology. 5. Medicine. 6. Surgery. 7. Obstetrics. 8. Gynecology. 9. Ophthalmology. 10. Otology. 11. Dermatology and Syphilis. 12. Nervous Diseases and Psychiatry. 13. Laryngology. 14. Public and International Hygiene. 15. Collective Investigation, Nomenclature, and Vital Statistics. 16. Military and Naval Surgery and Medicine. 17. Practical and Experimental Therapeutics. 18. Diseases of Children. 19. Dental and Oral Surgery.

3. The General Meetings will be reserved for the transaction of the general business of the Congress, and for addresses or communications of scientific interest more general than those given in the Sections.

4. Questions which have been agreed upon for discussion in the Sections shall be introduced by members previously nominated by the officers of the Section. The members who open discussions shall present, in advance, a statement of the conclusions which they have formed as a basis for debate.

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5. Notices of papers to be read in any of the Sections, together with abstracts of the same, must be sent to the Secretary of that Section before April 30, 1887. These abstracts will be regarded as confidential communications, and will not be published until the meeting of the Congress. Papers relating to questions not included in the list of subjects suggested by the officers of the various sections will be received. Any member, after April 30, wishing to bring forward a subject not upon the programme, must give notice of his intention to the Secretary-General at least twenty-one days before the opening of the Congress. The officers of each section shall decide as to the acceptance of any communication offered to their section, and shall fix the time of its presentation. No communication will be received which has been already published, or read before a society.

6. All addresses and papers, read either at General Meetings or in the Sections, are to be immediately handed to the Secretaries. The Executive Committee, after the conclusion of the Congress, shall proceed with the publication of the Transactions, and shall have full power to decide which papers shall be published, and whether in whole or in part.

7. The official languages are English, French, and German.

In the sections no speaker will be allowed more than ten minutes, with the exception of readers of papers and those who introduce debates, who may occupy twenty minutes.

6. The rules, programmes, and abstracts of papers will be published in English, French, and German,

Each paper or address will appear in the Transactions in the language in which it was delivered by the author. The debates will be printed in English.

8. The officers of the General Committee on Organization are a President, such number of Vice-Presidents as may hereafter be determined on, a Secretary-General, and a Treasurer, and those elected to these positions will be nominated by the General Committee to hold the same offices in the Congress. All vacancies in these offices shall be filled by election. Honorary Presidents of the Congress and of the several sections may be appointed at the meeting of the Congrgess.

10. There shall be an Executive Committee, to be composed of the President, Secretary-General, and Treasurer of the General Committee, the Chairman of the Finance Committee, and of four other members to be elected by the General Committee. The duties of the Executive Committee shall be to carry out the directions of the General Committee, to authorize such expenditures as may be necessary, and to act for the General Committee during the intervals of its sessions, reporting such action at the next meeting of the General Committee.

11. There shall be a Standing Committee on Finance, composed of such number of persons as the Executive Committee may deem expedient, to be appointed by the President, subject to the approval of the Executive Committee. The Chairman of the Finance Committee shall be *ex-officio* one of the Vice-Presidents of the Congress, and also a mem-

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ber of the General and Executive Committee. The Treasurer shall be *ex-officio* a member of the Finance Committee.

12. Presidents of the section shall be *ex-officio* members of the General Committee.

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THE LONGEVITY OF FEMALE BRAIN-WORKES. Is simply in accordance with the established fact of the longevity of masculine brain-workers. Thus, Hannah Moore died at the age of eighty-eight; Mrs. Somerville, at the age ninety-two, Miss Mitford, at the age of sixty-nine. At the time of her death Madame DeSevigna was sventy, Miss Bremer sixty-four. Miss Edgeworth eighty-two, Madame Darblay eighty-eight.

ROLLER SKATING A CAUSE OF LEUCORRHEA.—Carl H. von Klein states that in forty-eight hours he saw nine children who were affected with leucorrhea which in his opinion was caused by roller skating exercise. He regards this exercise as injurious to young girls and young women by reason of the excessive movements of the lower extremities, the pelvic organs and the walls of the vagina.—*Boston Med. and Surg. Jour.*, April 2, 1885.

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ORIGINAL ARTICLES.

ATROPHIC NASAL CATARRH.

BY J. A. MULHALL, M. D., Physician to the Throat and Lung Department, St. Louis Medical College Dispensary.

[*Read before the Missouri State Medical Society, St. Joseph, May*, 12, '85.]

I employ the word "catarrh" out of deference to general usage. Its incorrectness is obvious. Atrophic catarrh is the disease meant when one speaks, of simple or idiopathic, or strumous ozena, that is, the ozena which has nothing to do with syphilis or neoplasm or foreign body. Ozena is but a symptom of various disorders. The term simple ozena is likewise incorrect, for though it corresponds to atrophic catarrh, the latter condition may exist without ozena. The scientific term is "atrophic rhinitis."

Most authors make a convenient division of nasal catarrh into simple, hypertrophic and atrophic, the latter being usually considered but a stage subsequent to hypertrophy. With this generally accepted belief I venture to differ for these reasons: 1. In the vast majority of cases of nasal catarrh with hypertrophy atrophy does not occur. 2. I have not yet read the record of a case where the same observer has noted well

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marked signs of both stages in the same individual. 3. Atrophic catarrh in the overwhelming majority of cases (in my experience in all cases) dates its origin from childhood, whereas in the hypertrophic variety, the majority date their symptoms after childhood. 4. Atrophic catarrh is more frequent in females, hypertrophic in males.

Atrophy of any structure, not preceded by inflammation of that structure, is always, I take it, of neurotic origin. Now, though I believe atrophic catarrh to be of inflammatory origin, I do not believe it to be of the degree or kind of inflammation that produces thickened tissue. The mothers of these patients do not give a history of severe colds in the head, nor that they have observed these children to have specially suffered from obstructed nasal breathing. So well am I convinced that in the majority of cases atrophy in the nose is not the sequence of hypertrophy there, that if a mother brought me her nine year old child afflicted with nasal catarrh and asked whether any probability existed that the disease would later on become stinking, and I found *true* hypertrophy (for there is an apparent, a false hypertrophy) I should predict that the catarrh would never become fetid, unless the child were strumous, in which case, however, I would hardly find *true* intra-nasal hypertrophy. Given two children one with tubercular antecedents, the other without family disease of any kind, I have found that the healthy child acquires an acute coryza much more readily than the other; its materials are more combustible, its vital current more vigorous, its exposure to cold more frequent, but the results are very different. The healthy child's coryza comes readily but departs quickly, that of the tubercular or scrofulous subject comes unwillingly but remains long. In the hypertrophy of the healthy subject the tissues are red, dense, resisting, and in that of the unhealthy subject, pale, soft, and unresisting; ozena improbable in the former, easily possible in the other.

There are no absolute rules in medicine. I readily concede to others that atrophic catarrh may commence in adult life, is sometimes the sequence of true hypertrophy, and that it occurs in those whose history, personal and family, there exists no morbid

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condition, but both are exceptional. I do not believe that the disease is related to any diathesis in particular, unless the condition known as struma or scrofula be considered a specific condition. Some consider scrofula to be related only to tubercle, others, as the late Professor Gross, only to syphilis. A far more rational view I consider to be that one which considers scrofula to be the result of a conception at the time of which one or both parents suffered from any condition, active or passive, which greatly enfeebled the organism, be it consumption, or syphilis, or cancer, or alcoholism, or old age, or other condition. The most frequent of these conditions is tuberculosis, and this is the only reason why we find it more often in the family history of atrophic catarrh than any other disease. The intra-nasal lesions of advanced hereditary syphilis have never been grouped and described. It has certainly nothing to do with syphilis directly. One fact alone would prove this; advanced intra-nasal syphilis lesions are ulcerative. Atrophic rhinitis is not ulcerative; nor has pathological research (and we owe most in this line to Fraenkel and Zuckerkandl) thrown any light on the cause of this strange malady.

Zuckerkandl found post-mortem any or every part of the nose affected, the entire lining membrane, the septum, the turbinates, the ethmoid, the outer wall of the internal nose, even occasionally the adjacent cavities; sometimes only the middle turbinates or the inferior turbinate. The disease was sometimes unilateral. The bones and membrane were usually atrophied in like proportion. In some a mere trace of a turbinated bone was found. Where the middle turbinate was affected all signs of olfactory nerve filaments had disappeared. In some cases he found hypertrophy and atrophy side by side, thus confirming to a degree the clinical view that atrophy is subsequent to hypertrophy. In no case did he find an ulcer or a scar. The theorists who have made no post-mortems maintain the opinion that contraction follows the newly formed bands of fibrous tissue, that the hypertrophy by a species of self-strangulation produces atrophy.

The diagnosis of a well-developed case is a simple matter to the rhinoscopist; so characteristic is the picture that he need

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not ask a single question. No other disease even resembles it.

Of all the organs in the body accessible to sight and touch, none is so frequently prescribed for without being properly examined as the nose. Given a man with the symptoms of a nasal catarrh, and I assert that the vast majority of physicians will prescribe for him without physical investigation; some might examine the anterior, still fewer the posterior nares. Surely no one will deny this to be irrational, irregular, unfair to the afflicted and to science. When medical colleges compel their students to master the easy art of rhinoscopy there will be much less general reproach that we are powerless in the cure of "nasal catarrh." Without the rhinoscope, diagnosis must be but guessing and treatment the work of chance. Nasal catarrh is but a symptom dependent on many diverse conditions and if this be so, signs, not symptoms, should be the foundation of the diagnosis.

One illustration: I know of a case, a child, who had suffered five years from a unilateral purulent fetid discharge, who had been treated by several physicians at various times, each on the assumption that the child suffered from strumous ozena: not one properly examined the nose. A foreign body was readily found impacted at the middle of the lower meatus, with whose removal the child, of course, at once recovered. On examining the nose in atrophic catarrh, if the patient has been untreated, or has not cleansed the nares, we usually find the cavities crowded with crusts, white, yellow, green or often black if the patient live where soft coal is burned. The secretion may however be entirely fluid, generally yellow. Before we can make a diagnosis the nose must be freed from every trace of secretion, often a difficult and tedious matter. In advanced cases we are struck by the roominess, the width of the cavities. We see the pharynx readily through the nose, or the superior meatus, or the semilunar fissure. Zanfal thought these roomy cavities to be congenital, and that the consequent feeble current of air assisted in the retention, dessication and putrescence of secretion, an opinion which Zuckerkandl's post-mortem researches thoroughly demolished. Symmetry may or may not be a feature. We may see the middle turbinate barely

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covered with thin tense membrane overhanging like a crag a perfectly normal inferior turbinate. We usually find the membrane pale and shrunken and dotted at irregular intervals with little crypts or depressions, the result of unequal degrees of atrophy. It is important to study these well, for their presence may be of great assistance in determining in a given case whether atrophy is about to commence or not. If the nose be not thoroughly cleansed the mucus remaining in these little sunken spots may cause them to be mistaken for ulcers; quite an error for an extraordinary feature of the disease is that there is never ulceration. There may be several erosions caused by ill-directed efforts at cleansing, by the edge of a hard crust or by the finger nail, but even these are exceptional. Cancer, syphilis, tubercle, lupus, leprosy, glanders, foreign body are associated in the nose with ulceration, but catarrh, hypertrophic, or atrophic, is not. The fetor in this disease has been the cause of much confusion, and has given the disease its usually accepted title, ozena simplex. It is quite possible that the profession at large understands what is meant by this name, but rhinology, which has made such great advance in the last decade, has shown why this name should not be perpetuated, how by substituting the term atrophic rhinitis all confusion is avoided. As I have said before, at one stage of the atrophy there may be no ozena. Later on there may be any degree of it, from a simple musty odor barely perceptible to a fetor which is most pronounced, but it is never so horrible as when membrane or bone is ulcerated, as from syphilis, cancer, or foreign body. It has been claimed to be peculiar, and inasmuch as at many stages the disease resembles no other, this may be admitted, but the interest of this observation ceases with its mention, since certain methods of diagnosis are available. Its cause has received various explanations, the most satisfactory of which attributes the decomposition to the influence of germs from without. In proof of the latter I have on several occasions thoroughly cleansed such a nose, and with such cleansing the odor has disappeared. Then I plugged up these nostrils with absorbent cotton, which filters air of all germs, instructing the patient to be satisfied with mouth breathing, till the following day, when, though I

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found secretion present, I found neither crust nor foul odor, or but little. It is well to remember that the patient does not perceive his own foul odor, and must consequently consult some one else, to know if it be present during treatment. Of some fifty cases that have come under my observation, in but one was an accessory cavity of the nose diseased, the maxillary sinus. To exclude disease of these cavities, it is simply necessary to absolutely cleanse the nasal cavities proper, being careful not to use any antiseptic, since this would deceive, when, if the adjoining spaces be healthy, no odor can be perceived. If one should find it utterly impossible to remove odor from the nose by properly conducted cleansing and if there be in addition supra- or infra-orbital pain or other signs we may conclude that the frontal or maxillary sinus is involved. The prognosis, in my observation, is never in doubt. Atrophic catarrh is incurable. I believe I am right in stating that well marked atrophy in any part of the human frame is seldom or never curable.

My opinion needs some elaboration since such an author as Cohen states in his book on Diseases of the Throat and Nasal Passages, that these cases often spontaneously get well towards middle life, and this is strengthened by the observation of Michel, of Cologne, in his book on the same subject, that we do not, or very rarely, see this disease after the age of fifty. Both statements, I think, are based on imperfect clinical observation. The truth of the matter is, I think, as follows: As these patients get older, and the disease progresses, the mucous glands one, by one, yield to the atrophic process, until finally they are quite extinct. Now these glands are the ones which supply the adhesive mucus, the serous glands supplying the more watery element. The mucous glands furnish the thicker secretion which forms the crusts; without such secretions and crusts there is no fetor. If, therefore, we have complete atrophy of such glands nature has effected an amelioration, but not a cure, and if we examine these noses in after years, though secretion be spare and fetor absent, we will nevertheless see atrophy, and find that the lost sense of smell has not returned. A German author uses the galvano-cautery in atrophic catarrh,

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for no other purpose I can imagine than to hasten this apparent cure. This complete atrophy may require ten years or sixty years for its accomplishment. I have one patient, a clergyman, in whom crusts and foul odor have disappeared at the age of thirty-eight, and another, a lady, in whom at the age of sixty-four they have not yet quite disappeared. This gentleman has cleansed his nose from behind forward with a simple alkali daily for fifteen years. I will take occasion to state here an interesting point. The lady has suffered since childhood. She has had nine children. The first seven are healthy, the last two, conceived late in life, both girls, are subjects of atrophic catarrh. This lady, after being disappointed in early life with efforts at cure, abandoned all treatment until within the last year, when the headaches from which she had long suffered having become unbearable, she applied to me for treatment.

Though this disease be not curable, much may be done in amelioration. Local treatment may be summed up in one word—*cleanliness.* Those who consult text-books will find every possible kind of local medication recommended, stimulation being, as it should be in atrophy, the dominant idea. What I have not tried I have known others to try, and I make bold to assert that thorough, unremitting cleansing with an alkali, will effect all the good that is possible. It may be that when the atrophic process is just commencing, its progress may be arrested or even regeneration effected by combined local medication and general hygiene, but I doubt it. Apparent cures are frequent. No decision can be reached until several months after all treatment has ceased. I feel quite sure that with well marked atrophic catarrh, my statement holds good, and it is important, if true, both in the interest of the patient and of exact science. I have known such patients to have incurred great expense of time and money in the vain endeavor for a cure. It must be that the opinion of some specialists concerning prognosis is very different from mine. In a visit or two the patient can be taught how to wash out the nose. This must be thorough. At first it may be necessary for them to do so three or four times daily, but the crusts soon cease to form, and then a single daily washing will suffice.

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In some old cases where the crusts are unusually dense and adherent, it may be necessary for the physician himself to remove them for two or three weeks, and by appropriate medication hasten the stage wherein crust formation no longer occurs, when he should resign further treatment into the hands of the patient. The patient should be told that the daily washing will be a matter of years, and can only be consoled with the advice that at some time towards middle life this will not be necessary.

In the list of unnecessary therapeutic agents I include antiseptics, for the following reasons: In the early stages of treatment they do harm, since they conceal the true condition of affairs, and tempt the patient to omit methodical cleansing, and thus delay arrival at the stage wherein crust formation or purulent secretion no longer occurs. If the nose be clean there is no odor, and therefore no need of antiseptics. If the nose be not clean there will be odor, and the indication for washing out exists. If a permanent antiseptic dressing could but be devised, in itself odorless, and permitting nose breathing, the case would be different. A simple plug of absorbent cotton in each nostril would be the best of all prophylactics to fetor, since such cotton filters air, as Tyndall has pointed out. Social exigencies may at times demand an antiseptic wash: the rationale of treatment does not. I order two instruments to be used, the ordinary anterior nasal douche and a posterior one, the latter being the one which eventually is alone used. I have never met with middle ear accidents or other mishaps from the use of the anterior nasal douche, but I always carefully instruct patients how to use them; and see them do it myself the first time. I think the most important point to know, in guarding against accidents, is whether one nostril be much narrower than the other. It is plain if the stream be allowed to enter through the wider nostril, that it enters faster than it can escape, collects in and distends the post nasal space, favoring entrance of fluid into the Eustachian tubes, and possible otitis media. In such cases therefore the patient should be instructed always to introduce the nozzle into the narrower nostril. The vault of the pharynx usually participates in the variety of catarrh with which the nostrils are affected. In atrophic catarrh the membrane here also is often atrophied and covered with

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crusts, which an anterior nasal douche will not dislodge. I therefore also order a posterior nasal douche, the one known as Warner's Catarrhal Douche being the one I prefer. Patients readily learn its use. It is without danger and is easily carried in the pocket when necessary.

After several weeks the anterior douche may be discarded and the Warner Douche relied on for daily treatment. The general health must be brought up to the highest possible standard in order to assist in maintaining an improved local condition for such good health will not cure. I have known a patient to have gained 20 lbs in six months from improved hygiene without any improvement in the local atrophy. Sometimes indeed the general health is perfect, and the subject robust and vigorous. Though this be exceptional, it is yet a sufficiently striking fact to imbue one with the belief that there yet remains to be discovered the actual cause of this strange malady, perhaps an organism so small that it has hitherto escaped the greedy eye of the microscopist, who, I may add, has not forgotten to look for it.

2305 Olive street.

TREATMENT OF HEMORRHOIDS BY DILATATION OF THE SPHINCTERS.

BY G. F. CENTER, A. M., M. D., JACKSONVILLE, FLA.

[*Read before the St. Louis Medico-Chirurgical Society, February*, 10, 1885.]

HEMORRHOIDS are aneurismal and varicose tumors within the rectum and at the verge of the anus. The plainly marked varieties are: first, the external venous; second, the internal arterial, and third, the internal venous hemorrhoids.

Sometimes the arterial internal and the venous external occur in the same case, but never are either of these ever complicated with venous internal piles. There has long been the distinction of hemorrhoids into external and internal without regard to their anatomical origin. We recognize the venous tumors external to the verge of the anus as external hemor-

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rhoids. The internal arterial hemorrhoid is an aneurismal enlargement, with inflammatory new formations of the hemorrhoidal arteries, located above the sphincter ani internus muscle.

The internal venous hemorrhoid is a varicose dilatation of the hemorrhoidal veins, and in marked cases the dilatation extends up to and includes the portal venous system, with relaxation of sphincter and contiguous muscles: in fact, there is a general pelvic venous plethora, and in most cases the constipation, which is the exciting cause of venous internal hemorrhoids, is merely the result of this plethora. Hemorrhoids have been classified into external and internal without regard to the question whether the blood vessels involved were veins or arteries. We think this hap-hazard jumble of well-known pathological conditions should cease; and, with this end in view, I would make the most common morbid condition the basis upon which to found a classification which will be readily understood by all, and at the same time be based upon facts. We would commence this by an examination of the anatomy of the muscles, nerves and blood vessels involved.

The muscles are the two sphincters. The external is a voluntary muscle which we may exclude as playing a secondary and subsidiary part in this affection. This is not the case with the internal sphincter, which is a true sphincter, composed of non-striated tissue, is not under the control of the will, has a greater supply of nerves than any of its neighbors, and is the constrictor muscle which is involved in the two chief varieties of hemorrhoids, in fact the only hemorrhoidal diseases which are benefited by operative procedures upon the rectum.

Flint says: "The external sphincter ani is a voluntary striated muscle of considerable power, and the last pair of spinal nerves bring this muscle to a certain degree under the control of the will."

Wilson says: "The external sphincter being a cutaneous muscle, contracts the integument around the anus and assists in giving support to the opening during expulsive efforts. The internal sphincter contracts the extremity of the cylinder of the intestine."

The external sphincter is formed by two semi-elliptical bands

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of striated muscle; it is about an inch wide, is superficially incorporated with integument, and extends from the tip of the coccyx, to be inserted anteriorly into a white fibrous knot or central tendon and into the raphé of the integument. (Vide Gray's Anatomy, p. 842; Wilson's Anatomy, p. 224.)

The lower border of the internal sphincter is situated about a quarter of an inch within the verge of the anus. This is at the junction of the skin with the mucous membrane of the rectum, and here at this junction is formed a white line. This circular white line corresponds with the linear interval between the external and internal sphincter muscles.

"The external sphincter is the cutaneous muscular assistant to the levator ani, whose fibres are partially inserted into the internal borders of the external sphincter, which is a cup-shaped striated muscle, and whose only function is to antagonize the peristaltic action of the colon and rectum." "Above the circular muco-cutaneous line of the rectum are the white non-striated constricting fibres of the internal sphincter ani, which is thick below near the anal opening, and becomes quite thin at two inches above the white line, or "landmark" situated between the skin and external sphincter on one side, and the mucous membrane and internal sphincter on the other or within."

"The pudic nerve gives off fibres which pass outward between the external and internal sphincter muscles: some of its branches are reflected upon the mucous membrane and the internal sphincter, and others turn outward to supply the skin and the external sphincter muscle." The distribution of this nerve's fibres and the spinal connection of this nerve with the lumbar, ilio-lumbar, and sciatic gives a rational explanation of the pains in the urethra, bladder, legs, hips, and in fact the whole pelvic region, when we have hemorrhoidal disease. "The inferior hemorrhoidal nerve and artery supply the sphincter externus, and the superior and middle hemorrhoidal nerves and arteries pass down inside the rectal walls immediately under the mucous membrane and inside the sphincter ani internus, which they supply in addition to the upper parts of the rectum; also the sympathetic gives off branches from the ganglion impar to the sphincter internus and

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contiguous blood vessels and the mucous membrane." "The external sphincter is relaxed by a voluntary process through the inhibition of the lumbar sphincter centre." "The hemorrhoidal veins commence in the subcutaneous spongy connective tissue of the anal sulcus, and pass under the skin outside of the external sphincter, and up along the mucous membrane inside the internal sphincter." "The whole blood supply in the production of venous piles is from the superior, middle and inferior hemorrhoidal veins, which communicate freely with each other and join their current to the venous portal system." "The arterial hemorrhoids are always above the internal sphincter ani, and are formed upon the superior and middle hemorrhoidal arteries." This anatomical review furnishes us with the key-note to a classification of hemorrhoids; and for all practical purposes we may wholly exclude the external sphincter ani, which, as shown above, is a voluntary muscle having but little if anything to do with their causation or continuation. On the contrary, we find the internal sphincter ani, which "contracts the extremity of the cylinder of the intestine," to be the muscle wholly demanding our attention in external venous and internal arterial hemorrhoids.

Allingham says: "There are three broadly marked kinds of internal hemorrhoids, viz., the capillary, the arterial and the venous hemorrhoids."

We can readily exclude his capillary variety, for that is only the beginning of one of the other two clearly defined and well-marked varieties. That exclusion leaves us the arterial and the venous internal hemorrhoids. The arterial internal always depends upon obstruction of the downward flow of blood through the hemorrhoidal arteries, by a lessening of the rectal lumen at the sphincter ani internus. The internal venous hemorrhoid has no necessary connection with the contractile condition of the internal sphincter, in fact, this is generally relaxed and readily permits the dilated veins to protrude through the anus. These veins have no valves: hence in the case of venous internal hemorrhoids, the obstruction must be above the internal sphincter, and, as a matter of fact, the obstruction is always found to be located, in this variety, in the liver, the uterus, impacted feces, in-

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ternal tumors or other hindering of the blood passing into the general, through the portal venous system. The most common form of piles comprises those located without the verge of the anus; and they are found to be originally varices of the inferior hemorrhoidal veins, which are being compressed by the lower border of the internal sphincter ani muscle. Let us examine the life history of one of these external venous hemorrhoids. The patient from habit or neglect does not respond at the proper intervals when his rectum should be exonorated. The result is that the rectum becomes accustomed to the presence of feces; and gradually the times of defecation becoming farther and farther apart, the upper part of the rectum becomes enlarged. This condition continues until the feces form in quite a large amount before they are discharged, and the extra weight of this hardened mass in passing through the internal sphincter bruises and abrades the mucous membrane. This being largely supplied with branches of the sympathetic and pudic nerves, they suffer from exposure in the abraded mucous membrane and excite contraction of the internal sphincter. This contraction causes the venules to become engorged; they add fresh irritation, and cause more vigorous contraction. By this means the venules become enlarged into varicose blood vessels; these vessels dilate so rapidly that their walls become very thin: then the stomata in these walls permit the plasma and leucocytes to exude. They become organized into tissue external to the veins, thus increasing the connective tissue elements, and causing new formations around these blood-sacs. The process when once begun goes on until the somewhat thin internal sphincter becomes hypertrophied into quite a thick fibrous band. This continuing, further obstructs the blood current, until, with the dread of alvine evacuations, the dilatation of the superior part of the rectum, the pressure of the feces against the rectal walls, and the lessening of the normal outlet, we find that what commenced as a simple hyperemia has become, by a combination of nervous, muscular and vascular action, a veritable case of external venous hemorrhoids.

External venous piles are produced by a contracture of the internal sphincter ani, which compresses the inferior hemorrhoidal veins, and prevents the blood from passing upward;

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and thus the veins become dilated into varicose tumors. The mucous membrane at the lower fourth of the rectum is loosely connected with the subjacent muscular coat, which here forms the internal sphincter, within which little semi-lunar valves form an irregular festooned line in the mucous membrane, surrounding the lumen of the rectum, and it is at this point where irritation from hardened feces or the lodgement of small particles of matter in the little cup-shaped valves, causes inflammatory action, which is reflexively increased by the spasmodic action of the sympathetic nerve acting upon the internal sphincter, which contracts, causing a hindrance to the free flow of blood, producing first a capillary congestion, and subsequently, if the contracture becomes permanent, a condition which we term hemorrhoids. The kind formed will be either arterial or venous, depending wholly on which way there is the greater obstruction to the blood current. If this is greater from within the pile will be arterial and form above the internal sphincter; if from without inwards there is the greater obstruction, they will be venous and external to the internal sphincter.

Formerly it was taught that the rectum was normally empty except at certain tolerably regular periods, at which time the accumulation of feces above the sigmoid flexure of the colon would cause O'Beirne's sphincter to relax and let them pass into the rectum, and immediately defecation would be obtained. We find in most cases, and especially the class under consideration, that a tolerance of feces in the rectum is formed, that convenience or occasion readily pervert this function so that feces may remain for an indefinite period within the easily dilatable upper portion of the rectum and it is quite common in old persons, those pressed with business cares and those of constipated habit, to accumulate large quantities of hardened and impacted feces within the rectum. The predisposing causes to hemorrhoids are a moist, warm, relaxing climate, and everything which produces hyperemia in the hemorrhoidal tributaries, such as high living, constipation, sedentary habits, liver derangements, dengue, malarial fever, indigestion, feeble circulation, proctitis or other inflammatory pelvic diseases.

The truth of the old adage *Ubi irritatio ibi fluxus est*, is prob-

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ably more rapidly illustrated in the rectal mucous membrane of those subjected to such influences and those addicted to intemperance, than in any other conditions.

The pathology of all hemorrhoids is primely local hyperemia, followed by vascular dilatation, with subsequent inflammation, exudation of leucocytes, and hypertrophy of the extra-vascular structures. To more fully elucidate the pathology of hemorrhoids from obstruction, we note: The blood vessel becomes dilated, the walls attenuated without increase of muscle cells, leucocytes and nutrient material transude, become organized into extra-vascular new formation completely surrounding the vessel, increasing the connective tissue traversed by the vessels, and thus rendering them cavernous sinuses, which, when excised, are held in a dilated condition from the loss of muscular power and the extra-vascular proliferation of tissue. Those who would avoid excessive hemorrhages from the removal of these tumors should remember their patent condition, and be careful to remove not more than a half, or at most two-thirds; thus will there be left enough tissue to contract and prevent hemorrhage. The part left will all be absorbed without contraction of the cicatrice to so great an extent as to render the rectal lumen too small, and thus while relieving the patient of one set of tumors laying the foundation for a successive growth of them.

The error or rather the omission of all the older writers has been to make no distinction between the characteristics of the sphincter muscles; nor any clear definition of what constituted their external and internal hemorrhoids. As proof of this let me quote Allingham, probably the best authority extant upon this subject: "I have no doubt that in certain cases of hemorrhoids, dilatation, full but gentle, of both sphincters will give wonderful relief; but there are cases in which no good has resulted." Then he goes on and nicely describes a venous internal hemorrhoid, which is never benefited by dilatation; but to show him fairly we quote: "In old standing disease, the hemorrhoids (our venous internal) easily prolapse at stool and on walking, stooping, coughing and other physical acts the sphincter muscles become so dilated that more dilatation could not

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mend matters, for no strangulation nor pressure takes place: the piles are large, but do not become livid outside the body, and the discomfort and suffering result not from any 'pinching,' but from the exposure of the mucous membrane to accidental friction and injury, and from mucous and muco-sanguineous discharges."

"I have often seen such cases where no remnant even of the sphincter muscles could be detected, and when the hemorrhoids were returned a large patulous opening could be seen, into which the hand might easily be passed."

I quote this excellent description of what I would call a well-marked case of internal venous hemorrhoids. He simply calls them "old hemorrhoids" without any anatomical ear-marks by which we could tell from whence they came, their cause or prognosis. He might have told us that such cases are always found in those relaxed, child-bearing women, of full habit, and those large, loose, flabby people, who neglect the calls of nature and become constipated. The liver rebels against so much fecal matter being reabsorbed and brought back to derange its work as an abdominal blood purifying organ. The liver cannot stand this overwork; the portal circulation shows hepatic engorgement; the whole abdominal venous system becomes plethoric, stagnant, and there must be some let-up to this obstructive process. We have it in the blood gravitating into the hemorrhoidal veins: they become greatly distended and stretch the mucous membrane. The sphincters, everything gives away before this venous plethora, and we find our problem is to get rid of these protruding anal veins, which are upon examination found to extend, like swollen cords, above the dilated extruded blood sacs, clear to and sometimes within the liver. At the commencement of these internal venous hemorrhoids, we find a hyperemic condition of the mucous membrane and a relaxation of the internal sphincter ani, which favors prolapse of the rectum. This leads to farther engorgement, resulting in enlarged veins, extravasation of leucocytes, hypertrophy, and thence to fully developed rectal hematoma.

Since the time of Harvey all surgeons who have devoted much time to the study of hemostatics have observed the large

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vascular development which exists in all the pelvic organs, and also the tendency from insufficiency of muscular and cardiac propulsion to generate disorders of hyperemic origin, resulting in aneurism, varix, hemorrhage, hematoma, thrombosis, hypersecretion, edema, hypertrophy, ulceration, and in the class of disorders of the rectum resulting in hemorrhoidal diseases, we find venous internal hemorrhoids in women who have borne many children, also in those suffering from an enlarged or retroverted uterus, and in those people addicted to the use of alcoholic drinks, causing them to have enlarged or contracted and indurated livers, which constantly impedes the free flow of blood in the portal circulation, and by a retrograde flow through valveless veins backs into the hemorrhoidal veins, causing piles.

Little sensibility and great distensibility is the physiological status of the upper two-thirds of the rectum, hence in diseased conditions of this part, we have but little pain, while on the lower inch and a half, the part occupied by the internal sphincter muscle, great vascularity and a liberal nerve supply from the pudic and sympathetic causes, when diseased, intense pain and distress.

The treatment, physiologically considered, is to remove the pressure and let the vessels gradually resume their natural size and function; for this reason, varices are only modes of equalizing excessive blood pressure.

The object of this paper is to offer a classification and a treatment of hemorrhoids which is founded upon a physiological and pathological basis. This we think expedient, because it is too well known that our professional brethren do not, satisfactorily to the masses, treat this disease of piles, as is too plainly shown by the innumerable advertisements in the religious and public press, offering to atone for our dereliction. There is a tendency to treat the effect rather than to remove the cause; too often the pile is removed, or hypodermically injected, and nothing is done to get rid of the condition which produced the tumor.

Allingham quoting Verneuil says: "In the great majority of internal hemorrhoids, nothing is required but the gentle and thorough dilatation of the external and internal sphincter muscles; no ligatures, no cautery, with or without clamp, is wanted,

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and no immediate removal of the piles need take place." Had they said "nothing but dilatation" in arterial hemorrhoids, they would have spoken the exact truth, for these are the "great majority" of the internal variety so benefited, and they should have excluded the venous internal hemorrhoid from instrumental procedures.

The treatment for internal venous hemorrhoids rests wholly in removing the venous obstruction, located somewhere above the rectum. This may be done by removing impacted feces from the colon, relieving an engorged liver, replacing the uterus; in fact, no local rectal treatment is worthy the considerate surgeon; for by removing the cause, the rectal trouble will disappear without internal ligatures, hypodermic injections, cauteries, or other meddlesome procedures, based for their use upon a want of knowledge of the cause of venous internal hem orrhoids.

Allingham says of excision: "In days gone by excision was performed by Dupuytren, Sir Astley Cooper, and others, but they all acknowledge the danger of the operation, and many fatal cases are recorded as having occurred even in the hands of masters in surgery." Of the écraseur: "It is barbarous and unsurgical." Of acids, "patients were not relieved at all, or only temporarily benefited." Of caustics, "the uncertainty and great pain deterred from using them."

Allingham agrees with Dr. Mathews, of Kentucky, "that the injection of carbolic acid into a pile is painful and inefficient, and that death is to be feared from peritonitis, embolism and pyemia." Dr. Mathews cites cases so caused. Allingham says: "I have tried the injection plan in some few cases, but the result was much pain, more inflammation than was desirable, a lengthy treatment and the result doubtful; certainly not a radical cure. It appears to me that all attempts to destroy vascular growths by causing coagulation of blood or inflammation in them, while they are not shut off from the general circulation must be fraught with danger, and you can have no guarantee that the coagulum may not break down into particles of dead tissue, and find their way into the vascular or lymphatic system and result in embolism or pyemia."

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Billroth says: "Varices of the hemorrhoidal veins in the lower part of the rectum cause hemorrhoids, and the treatment of varices is very unsatisfactory, and we may not try to remove them until we can get rid of the causes, for if we remove one or more varices, others will form in their place, and for this reason I reject all operations which aim at removing one or more varicose nodules. If you can bear in mind that any operation on the veins may prove dangerous to life by complication with thrombosis or embolism, you will agree with me in considering the operations for varices entirely uncalled for."

Could there be a plainer condemnation of the treatment of hemorrhoidal varices by the injection of the nodules with a hypodermic syringe, as is too often done by those who should have had a better knowledge of their pathology than to risk the lives of patients with an operation which at best is but a palliative, because the contractured sphincter or other obstruction to the free circuit of the blood is not removed and it is only a point of time until the same or other tumors will form, unless the cause is removed.

That there may be no misunderstanding in these cases let us exclude from all dilatation or other operative procedure the venous internal pile; and we draw the line, internal and external, at the sphincter ani internus. That muscle, at its lower border can readily be seen in health as a whitish line around the rectal lumen, commencing at the junction of the skin and mucous membrane, which latter it lines for nearly two inches. When the mucous membrane is much inflamed the sense of touch will reveal its presence; with the internal venous pile, we find the internal sphincter relaxed, the mucous membrane congested, and a large rectal lumen, often permitting procidentia recti as a complication of the hemorrhoidal varices.

These venous internal tumors, if large, readily protrude through this ring, and without some care might be mistaken for external venous piles; however, the sphincter internus will soon clear up this difficulty, for in external venous piles the internal sphincter will be found contracted, and in old cases contractured.

The arterial pile is always an internal growth, the sphincter

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internus is contracted, the tumors are generally small, seldom or never prolapse, and when you have sufficiently dilated the internal sphincter, so that your finger is not pinched by it, you can feel the arterial pile pulsate. It is less dangerous to inject with Monsel's solution or carbolic acid, an internal arterial, than an internal venous pile, although this palliative, unnecessary procedure is a work of supererogation after the use of the dilator. There is little benefit and no danger in the injection of external venous piles, so long as the internal sphincter ani remains firmly contracted, the object sought, removing and preventing their recurrence, is not thus obtained.

Another fallacy is that this internal sphincter can be properly dilated with the thumbs. They have not the power, nor can they be made to act high enough to accomplish complete dilatation.

In proof we quote an author who "always dilates the sphincters with his thumbs and applies the pressure, and kneads the muscles thoroughly until the previously hard muscle feels like a well beaten beefsteak or putty." Sic!! And yet he says "in internal piles after operating with ligature, clamp and cautery, with thumb dilatation, the blood escaped in jets," and in another case "in consequence of the tightness of the sphincters the blood does not escape outside, but fills the rectum and colon full of blood." Also, "I never lost a patient, although I have seen persons in considerable danger."

Comments on such an *opprobrium chirurgicorum* are superfluous. The proper treatment for the relief of arterial internal hemorrhoids is to cause the lumen of the rectum to be made large enough so that the descending artery lying between or within the muscular coat of the intestine, and below the mucous membrane may not continue to be compressed; causing first capillary, then aneurismal enlargement of the arteries above the point of compression.

The obstructive point is the internal sphincter muscle, hence the treatment par excellence is to dilate, after which *vis medicatrix naturæ*, reasserts her sway, and the hemorrhoidal aneurisms pass away.

Should there be much proctitis before or after dilatation, co

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pious injections of water, to which some acetate of zinc is added, in addition to suppositories containing tannin, oxide of zinc, or other astringent, with a small amount of extract of opium, will produce the desired results. Owing to the constant recurrence of venous external hemorrhoids, we find cases which have the original clot absorbed, and become in the process of repair mere cutaneous hypertrophic excrescences, or little tabs of redundant skin. They need not be interfered with unless they become so numerous that they interfere with detergent applications. We exclude from dilatation cancerous stricture of the rectum, which may be known by a hard, irregular nodular ring, with leaf-like proliferations. Also the cachexia and the microscopic examination of the bloody purulent discharge, together with the odor, will exclude this from hemorrhoidal diseases, and furnish a subject for rectotomy. The symptoms of hemorrhoids are itching, irritation and discomfort, tenesmus, burning pain when at stool, irritable bladder, a mucous discharge, followed by bloody stools, tape-like motions, disturbed nights, miserable bodily condition, pinched-up, sallow, complexion, a fecal perspiratory odor, and spanemia from the reabsorption of feces, with hematoma. Since 1877 I have been treating properly selected cases of hemorrhoids by forced dilatation; using a dilator devised by me for that purpose. In the *American Medical Bi Weekly* of February, 15, 1879, Louisville, Ky., I reported twelve cases treated by this dilating process. Since 1879, in private and hospital practice, I have operated on about seventy cases of arterial internal and venous external piles by dilatation, and I have been universally successful in relieving these cases with my dilator, without, so far as I can learn, a single failure.

To sum up all that is worth knowing about piles, we would say—Dilate the sphincter ani internus with a dilator for external venous and internal arterial piles, and do nothing more, unless, in the case of external venous piles, you remove the tumors, for cleanliness after defecation, and this is only necessary in old cases. In internal venous piles, do not excise, ligature nor inject the tumors, nor dilate the sphincter ani internus, but give your patient Hunyadi Janos water to free cartharsis, removing thus the liver engorgement, replace the uterus, if mis-

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placed or give astringent injections or suppositories, and nature will complete your work.

The dilator constructed from a design furnished by me, is when closed about the size of the index finger; it consists of two straight, elliptical blades, three inches long, separated by a screw. Opened or closed they remain parallel, and when fully opened dilate to a circumference of six and half inches. In using the dilator it will be found most convenient to have the patient upon a bed or table, lying on one side, with the thighs well flexed; the operator standing behind the patient can then introduce the dilator so that the dilating screw shall be poster-

ior to the sacrum, which is the easiest position to manipulate the instrument. The operator should remember always to dilate the internal sphincter, in the sacro-pubic pelvic diameter, so that he may not rupture the fibres of origin from the coccyx nor the anterior insertion of the external sphincter muscle; *id est*, extend this muscle in a line of its fibres, and not transverse to them, as is done when the thumbs are introduced and the fingers are placed upon either buttock, tearing loose the end of one half this muscle, which does not cause nor continue hemorrhoidal diseases, and thus lose for us that voluntary control over the rectum which is greatly needed, after dilatation, and until the true sphincter has a few days to regain control of the bowel.

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THREE CASES OF MODIFIED MEDIAN LITHOTOMY.

BY W. HUTSON FORD, M. D., ST. LOUIS.

[*Read before the St. Louis Medico-Chirurgical Society, April* 7, 1885.]

CASE I.—Mr. T. T., aged 28 years, married, with two children, well developed and strong, presented himself September 18, 1879, for examination. He had been treated in the city of New York by a well-known surgeon, who had not however examined his urethra carefully in consequence of the patient's refusal to permit the introduction of instruments. Circumcision had been performed for a congenital phimosis.

The stream of urine was small, the urine neutral, turbid and of a highly ammoniacal odor when freshly passed. He had had frequent attacks of epididymitis on one side at a time, but had never passed any blood. Defecation had for a long time been painful, especially when the bowels were costive. He had never had a gonorrhea. The urethra was evidently congenitally narrow, but the external genitals were well developed.

Bulbous bougie No. 16 (*French*), barely passed, revealing a contraction two and a half inches down.

Being engaged in pressing business he was unable to remain for treatment and was advised to wash out the bladder twice a day with warm water containing hyposulphite of soda, glycerine and borax, and to use a suppository at night for ten days, and then to return to the city for a formal examination under ether. No instrument except a soft catheter had as yet been passed into the bladder.

The bladder washings only increased his pain, and I advised him to return at once to the city. He did so October 3, but postponed the examination in order to visit the Fair then in progress, moving about more than was usual with him. This precipitated an attack of epididymitis of the left side, which required active treatment so that the proposed diagnostic exploration was necessarily postponed until the 18th of the month.

The examination revealed a urethral calculus lying in the membranous urethra. This was removed piecemeal by a peri-

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neal incision October 22. It was closely adherent to the surrounding structures from which its fragments, phosphatic in character, had to be detached by the finger nail. Upon exploration of the bladder through the wound, a calculus of moderate size was detected in the bladder, lying upon the right side. A Little's straight bulb-pointed director was passed into the bladder and the urethra dilated with the finger, whose tip came fairly upon the stone. Blizzard's knife was then passed in by the groove of the director, and the prostate and the neck of the bladder very moderately incised on the left side and somewhat obliquely downwards. The forceps grasped the stone in a favorable direction upon the first trial and extraction presented no difficulties until the portion of the membranous urethra just bordering on the cavity in which the urethral calculus had lain was reached. The walls of this passage were so thickened and inelastic that the progress of the stone was temporarily arrested until an incision had been made directly downwards, the finger being in the rectum to guard it from injury. The calculus was then withdrawn unbroken. It measured an inch and a quarter in length by about an inch in thickness and was of ovoidal shape, weighing 165 grains when moist. The urethral calculus weighed 185 grains. Both calculi were phosphatic upon a uric acid nucleus.

After the operation the bowels were kept quiet by opium for a week, when they were moved by an enema.

The epididymitis which existed in a subacute form at the time of operation gradually disappeared. The perineal wound closed finally on the sixteenth day. On the tenth day he had a rigor which did not recur. The urine became perfectly clear and free from odor in the third week.

Twenty-eight days after the operation he left the city, looking nearly well, passing a full stream of urine, but there was still some disposition towards incontinence when the bladder was full. He regained complete power over the sphincter and cut-off muscles a few weeks later. Towards the end of January, three months after the operation, he wrote me that he was quite well, felt like a new man, had resumed business, and there was "no trouble in sight" of any kind. Six years have elapsed

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since the operation and he has continued perfectly well. There has been no recurrence of stone and no abnormal symptoms referable to the urinary organs.

CASE II.—Judge, A. D., æt. 60, very feeble and broken, has passed small calculi in former years three or four times to his knowledge, voiding them without pain up to three years ago. He then began to have frequent micturition after an attack of renal colic, after which no calculus was passed by the urethra. He has been treated by various practitioners during the above period, and has passed much of his time at watering places frequented for diseases of the urinary organs. He has never been sounded.

June 18, 1883.—Urinates every ten minutes or quarter of an hour. There is great pain in the penis and perineum and down the thighs after each act of urination. There is frequent stoppage of the stream, and some blood is occasionally passed. There is some tenderness in the left renal region and much more in the suprapubic. The urine is loaded with pus and mucus and is highly offensive.

By the finger in the rectum the prostate was felt to be enlarged, very hard and painful upon pressure. A sound abutted directly upon a calculus occupying the dilated prostatic urethra and evidently of considerable size, and could not be passed beyond the stone.

On the twenty-third of June following, a median incision was made in the perineum and the stone extracted. The extraction was attended by considerable difficulty, the stone being so tightly embraced by the walls of the prostatic urethra that it was immovable. Lateral incisions were made with Blizzard's knife and a herniotome at points of constriction and the calculus eventually extracted entire. There was no other calculus in the bladder, which was well washed out with Gross's regurgitant syringe nozzle. The hemorrhage was very moderate, hardly more than three or four ounces. The stone weighed, when moist, 1050 grains Troy, and when dry, 780 grains, and measured $2\frac{1}{8}$ inches in length, by $1\frac{2}{16}$ inches in thickness. It was very regular in shape, a slightly flattened ovoid. Its composition was mainly of uric acid with a thin layer of phosphates

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encrusting it. A small ball-pointed silver catheter of sigmoid shape was passed into the bladder and left over night, through which the urine flowed away as fast as secreted.

The next morning he had a severe rigor and the pulse ran up to 150. The catheter was withdrawn and the deep urethra washed out through the same catheter passed by the meatus, with a borated solution. This was done subsequently after every act of urination. He retained considerable power over his bladder, but the urine overflowed whenever it accumulated notably. Quinine, bicarbonate of potassa and champagne were occasionally administered. June 25, the deep urethra and cavity of the prostate were washed out every three hours. The pain diminished, the stomach became more retentive, and the urine trickled through the wound almost continuously. Decu bitus was on the sides, alternately.

By the 26th, three days after the operation, the pulse was fuller and stronger. The bowels moved spontaneously and without pain. The tongue was moist, and nourishment was taken in greater quantity. He took quinine and champagne every four hours, and the deep urethra was washed out every three hours. From this time he continued to improve slowly. The wound showing no disposition to close by the end of the second week, three silver sutures were passed through the perineum and fastened to quills, in accordance with the practice of Mastin of Mobile, in certain analogous cases. The sutures were removed on the eighth day, and union was found perfect. The perineum was soundly healed by the twenty-fifth day. The washings of the deep urethra were continued after each act of micturition and about every four hours besides, the bulbous-tipped catheter being passed by the meatus, and the fluid injected allowed to regurgitate by its side. This was done with care to prevent tension of the injected fluid upon the wound, and the patient was placed upon his side for this purpose so as to render the urethra dependent.

The urine continued to dribble from the penis whenever it accumulated, and although this incontinence diminished greatly, yet it existed so markedly when the patient was well enough in other respects to return home, that it was necessary to provide

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him with a rubber urinal furnished with a dependent pouch which extended down the leg and was provided with an opening closed with a screw cap at its lowest point. He wore this for some months and eventually regained entire control over his bladder. A year afterward the patient visited me and was sounded. He was free from stone and phosphatic incrustation, and has continued so up to the present time, having entirely recovered his health, walking and riding without inconvenience.

CASE III.—Dr. K., aged 30, of strong build and medium weight and height, had suffered from symptoms of vesical calculus for several months. A stone of moderate size was found in the bladder by Dr. Edward Borck, who kindly sent the case to me. As the calculus upon further examination was found to be of moderate size, it was determined to extract it by the perineum.

January 28, 1884.—The usual perineal incision having been made, Little's director was passed, and alongside of this the finger was introduced into the bladder, coming in contact with the stone. The director being turned towards the left side, Blizzard's knife was used to incise the prostate and neck of the bladder to a moderate extent. The stone was grasped readily by the forceps, but could not be extracted until several incisions had been made laterally and downwards into the apex of the prostate. Being almost wholly phosphatic and very friable, a considerable portion of its surface was crushed off by the pressure of the forceps, some of these fragments remaining behind in the bladder. These were washed out by repeated copious injections of warm water through the regurgitant syringe nozzle. The finger was used very carefully to ascertain that no fragment was left behind, being passed in after each washing, and to extract some fragments which the injection had failed to bring away. When the bladder was found clear of all fragments and detritus, the sigmoid, bulb-tipped silver catheter was introduced, tied in, and allowed to remain for twelve hours, After this the urine was allowed to pass directly through the wound. The patient had complete control over his bladder from the first. As in case II, this sigmoid catheter was used every four hours to wash out the deep urethra with a borated

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solution. The patient had no bad symptoms whatsoever, and the wound closed finally on the tenth day. He returned home three weeks after the operation and has had no recurrence of calculus up to this time. The stone measured an inch and a half in thickness and weighed when moist 210 grains. It was almost purely phosphatic and exceedingly friable. The operation was attended by scarcely any loss of blood.

MEDICAL EDUCATION.—At the regular quarterly meeting of the Illinois State Board of Health, held in the city of Chicago, April 16–17, 1885, the following preamble and resolutions were unanimously adopted:

WHEREAS, Many medical colleges do publicly announce that an entrance examination of candidates for admission to their lecture courses will be exacted, and do honestly and impartially enforce such examination; while, on the other hand, a number of schools either avoid making such announcement, or evade the practical enforcement of any requirement of general education preliminary to the study of medicine; and

WHEREAS, These conflicting practices result in lowering the standard of medical education by attracting to a certain class of schools students who are poorly prepared for the study of medicine: Therefore, be it

Resolved, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical-Practice Act in this State, it is necessary that each college shall distinctly state in its Annual Announcement that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

* * * * * *

Resolved, That since the publication of the names and addresses of matriculates is desirable for purposes of information, the Secretary be authorized to request of all colleges desirous of being accounted in good standing in this State that they publish in their successive annual announcements complete lists of the matriculates, as well as of the graduates, of each immediately preceding session.

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CASES FROM PRACTICE.

MISSOURI MEDICAL COLLEGE DISPENSARY—DEPARTMENT OF CHILDREN'S DISEASES.

Service of PROF. J. P. KINGSLEY. Reported by P. D. CONNOLLY, M.D.

CASE I.—CHOREA.

March 20. Hatty M ———, æt. 13. On inspection nothing was seen to indicate illness or trouble, save the nervous twitchings and involuntary movements of the muscles, especially those of the face. Asking her to show her tongue, the peculiar thrust so characteristic of chorea at once diagnosed the case. This "strange nervousness," as the mother termed it, was noticed some weeks previous; the movements were then slight, developing gradually until they assumed their present aspect. On inquiring into the family history, no hereditary tendency to neurotic affection was discovered; however, the mother stated that her daughter always manifested a nervous disposition, being more fidgety, light and giddy than any of the other children. The patient's general health is good, appetite fair, heart-sounds normal, nor has there been any previous illness which might point out a cause of the present malady.

Diagnosis:—Chorea (monolateral). What it is due to is left for further investigation.

Treatment:—Liquor kali arsenitis, mijss, ter in die.

March 24. No apparent abatement of disease, nor has the mother noticed any diminution or increase in the severity of the symptoms. The treatment as before.

March 29. Though appearances argue little or no change in the physical manifestations of the disease, the mother declares that her daughter is doing much better. Continued treatment.

April 1. Patient much improved; the muscular movements are

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not as violent, nor are they as frequent as when the patient first came under observation. The choreic thrust of the tongue, so marked in the beginning, is now scarcely noticeable. The mother, also, has observed a marked improvement in her daughter. Fowler's solution is still ordered.

April 6. Improvement gradual and steady; patient almost well; movements but slight. Walks without any difficulty. The only symptom not warranting a complete recovery is the nervous twitchings, which are observed only now and then. The patient still takes the liq. kal. arsenitis.

April 13. Mother and daughter come to clinic to thank doctor for the speedy and effectual cure. No sign whatever of previous malady. No movements or nervous twitchings observed. Case pronounced cured and treatment discontinued.

CASE II.—INCONTINENCE OF URINE FROM CONGENITAL PHIMOSIS AND ADHESION OF PREPUCE TO GLANS PENIS.

April 21. Walter B., æt. 4; parent states child continually wets the bed and his clothes. His underclothes are never dry. Mother says she whips him for the bad habit, but it is of no use.

On examination of the child's penis, the meatus presented a red and inflamed appearance; the preputial orifice was contracted and the head of the glans penis, surrounding the meatus, was red and turgescent. With no little difficulty, and causing much pain to child, the foreskin was drawn backwards. On its retraction, however, it was found that the inner lamella of the prepuce was firmly attached all around to the glans penis, beginning at a point midway between the meatus urinarius and the corona glandis, and indicating a former ulcerative process of the parts. The adhesion was broken up, and the only treatment prescribed was an inunction of the parts with vaseline and a gentle retraction of the foreskin once or twice a day.

April 24. Patient again appears at clinic. On examination reveals absence of the inflammatory changes noticeable in the beginning. Parent states that he has not wet the bed for two nights, a thing of constant occurrence before. He wets his clothes but once or, at the most, three times a day.

May 1. The former trouble has entirely disappeared. Has not wet the bed nor his clothes since April 24. No inflammation visible, parts in a healthful and normal condition.

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CASES OF SPLENIC ABSCESS ACUTE AND CHRONIC.

BY C. BEVILL, WINFIELD, ARKANSAS.

CASE I. January 28, 1885. I was called to see S. Y,, aged 24 years, six feet high, weight 175 pounds when in health, fair complexion, auburn hair, of somewhat rude, go-a-head disposition, not a drunkard, but will drink occasionally. I had attended him in April, 1884, for several days while suffering from a severe attack of pleuro-pneumonia; he had recovered from it all right.

I saw when I arrived at the house where he was that there was something wrong with him. He was lying on a pallet made of quilts on the floor before the fire. He said he could not rest on a feather bed. He was on his right side, knees drawn up, head thrown forward; skin of a yellow cast, tongue of a lead color; thirst prominent, but a swallow of water would make him sick and give him such pain in the stomach at the left side that he dreaded to drink; pulse 90, respiration 33, temperature 99.2°. He had a cough that gave him trouble owing to the great soreness in his left side. His bowels were costive, urine scanty, high colored, with a sediment left after standing awhile; around his body just across the umbilicus was a constricted place as if a cord were drawn around him tight; he could not stand erect owing to this drawing in his bowels. He had no appetite; what he did eat was vomited.

On examination there was a fulness in the left side,and the region of the spleen was very sensitive.

He said that during the last week in December he had been helping get a drove of cattle out of a field, and had become very warm, although the ground was covered with sleet. Coming to a small creek that was over their foot-log, he concluded to run through the creek, and threw his boots over. He made an attempt to go through but could not. He ran nearly half a mile to the nearest house. By the time he got there, being wet and barefooted, he was so cold that he had no feeling in his feet and lower part of his body. He got warmed up and felt well until January 8, 1885. He helped butcher some hogs on that day, and while carrying one on his shoulder, up a little hill, he "felt something give inside." He said the pain was in his right side, and it continued until the next day, when it moved into his left side. It seemed to be deep, and of a tearing character; it made him sick at his stomach. He took

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some pills that night. They gave no relief. January 10, he sent to another doctor for medicine, as I was away. This seemed to give no ease. January 13, he sent for the doctor, who gave him cathartic medicine and a mixture for his stomach. Three or four days later as Y. was still sick at the stomach, he blistered him well over the epigastric region. This seemed to give him a little ease. In a few days he went on a gentle horse to see the doctor and get more medicine. He continued very weak, gained appetite, slept little, and on my return I was called to see him. After hearing the history I noticed his side closer, and found that just under the ribs next the spine there was a deep-seated tumor of an oblong shape,so sore that he could not bear to have me touch it with any force. There was no tenderness of his testicles and spermatic cord. I told them that it was undoubtedly a case of acute inflammation of the spleen, caused by his exposure during the cold wet weather and lifting heavy logs of wood on the farm; that there was strong reason to believe that an abscess was forming and that it would be some time before he would get relieved. I saw but little chance to do any good by giving medicine. I ordered rest. I painted his side well with tincture of iodine, directed it to be repeated until the skin should become too sensitive to stand it. I also gave morphiæ sulph. and Dover's powder at bed-time to produce sleep.

January 31, he said that the sleep had been of great benefit to him. His appetite was a little better. Milk seemed to agree with his stomach, when taken in small amounts. The tumor was growing more prominent, and pouting out.

February 3, his side was paining him severely, throbbing at times, which confirmed my belief in its being an abscess of the spleen. He was having night sweats, which were weakening him down. His kidneys had nearly ceased secreting urine; his bowels were constipated, pulse 110, temperature 101.5°, respiration 30. I put him on iron and quinine to support his system, and gave syr. rhei and fld. ext. of burdock to move his bowels and act on the kidneys.

February 11, he had gained some little strength, though his side was giving him pains all the time. The swelling had by this time reached from the spine to the anterior crest of the superior portion of the ilium. I directed warm poultices. Two days later Dr. A. A. Sanford visited him with me. There was little change in the tumor. It would pit more easily on pressure and was of a yellow hue.

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As we had no aspirator I introduced a long needle of a hypodermic syringe just under the last false rib, to the depth of three-fourths of an inch, where it entered a cavity, and on drawing out the piston I got a few drops of bloody water with a little pus in it. We concluded to keep him on supportive measures for five or six days more, and continued the poultices. In a week he had gained strength enough to come into town, some seven miles, in order to be nearer me after the operation.

At 2 P. M., February 22, forty-six days from the time it began to to pain him, I opened the abscess. Some of the pus was yellow, some like cream, and more of it like coffee grounds and blood. Over a quart of pus was discharged then, and the discharge continued for seven days and nights. He improved until on the eighth day after the operation he was able to go home. At present, April 3, he is able to work.

CASE II. Mrs. O., aged 40, the mother of six children, youngest four years of age, has been subject to amenorrhea for years, sometimes dodging, as many as five months. She had been feeling badly for some time and had a heavy sensation in her left side. Had had no appetite for some time.

On February 4 last, she felt very sick and weak, had a severe pain in her left side and shoulder, and shortness of breath followed by a severe shake, and profuse perspiration and cold feet. The next day she took about thirty grains of quinine to keep off another chill. Dyspnea and pain under the left shoulder continued, but she was able to sit up most of the time that day. The morning of the 6th was followed by the same train of symptoms as the 4th. When I saw her at 7:30 P. M., she was propped up in the bed, panting for breath, pulse 140, respiration 35, temperature 99.5°. The pulse was weak, and not perceptible at the wrist or ankles. Her hands were still cramping, also her legs would cramp severely at times. She was cold to the knees and elbows, bathed in sweat, could answer my questions with difficulty. The severe pain in her left side, she said was killing her. I administered amyl nitrite by inhalation, and aroused the circulation enough to give ammonia and tr. capsici internally, and used mustard to her spine. After a while she rallied so that she could tell me something of her history. She said "that there had been an uneasy sensation in her left side for weeks, and that on the night of the second of the month, after lying down, something broke inside of her." She got

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very sick and vomited. No pus was in the matter ejected, but in a short while the bowels began to move, and she was sure that they must have moved twenty-five or thirty times during that night. Most of the passages were like matter out of a boil, there would be but a very small amount, at times not over a spoonful. Her side got easy after this, and she thought she would soon be all right again. This was followed by what I have just related on the fourth, fifth, and sixth days. She told me that before the "smothering" sensation began there was a sharp tearing in her left side again, and "she could feel something running out inside of her."

I prescribed carbonate of ammonia, iron and quinine. I saw her again on 10th, she was still troubled with dyspnea, and palpitation of the heart. The heart's action was impeded by pressure. There was bulging of the intercostal spaces and dulness on percussion. As I had no aspirator, I ordered a blister, and she applied the same plaster four times in eight days to the same place with benefit every time. I gave iodide of potassium to stimulate absorption and kept her bowels regular.

March 3, she was coughing up a great deal of yellow and cream-like matter, and said it all came from her right side. Respiration 22, pulse 95; I did not take the temperature. She was still very sore in the splenic region, and more especially where the tearing sensation had been, when her bowels moved so often. I still have her on tonics, but she keeps weakly most of the time. She has menstruated since, and did well, not much pain.

REMARKS.—As these are the only cases of splenic suppuration I ever saw, I paid close attention to them. The first from acute splenitis, the second from chronic.

Prof. Flint, in his "Practice of Medicine" says that he has no "practical knowledge of an abscess of the spleen." Roberts gives us no light on it. The late G. B. Wood, M. D., in his old "Practice" gives us a short article on acute splenitis attended with suppuration, and tells how it may terminate.

Dr. Wardell, in the "Reynolds' System of Medicine," Vol. III, pages 451, gives us more satisfaction than any work that I have yet read. As to the cause, Dr. Wardell, says "that exposure to a lower temperature, after hot and sunny days, * * * great bodily exertion, such as protracted journeys, in damp and marshy districts, * * * Intemperance may also be named."

On the symptoms he says "that there is a sense of tension,

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weight and dragging in the left hypochondriac region; pains are felt deep in the side, sometimes of a short and stabbing character, which radiate to the epigastric region or around to the spine, or extend to the left shoulder, the clavicle, or to the breast; sickness and vomiting may supervene." He gives us but little on the termination of acute splenitis.

Joseph Coats, M. D. in his "Manual of Pathology," 1883, says on page 366, "It is a very rare circumstance for suppuration to occur in the inflamed spleen, but this has been met with in intermittent fevers. * * * If the abscess breaks externally, fatal peritonitis is the result."

The late Dr. S. D. Gross, in his "Elements of Pathological Anatomy" on page 347-8: says, "Acute splenitis seems to be a very rare disease, both in this country, and in Europe, but is very common in the East Indies. * * * In the acute form, the patient commonly complains of a peculiar fullness and sense of pain in the left hypochondriac region, increased by coughing, and pressure externally. * * * Much difficulty is experienced in lying on the affected side. There is a boring and pressing sensation felt in the epigastric region, etc." On suppuration of the spleen, he says, "It is a very rare occurrence, though not so much so as the few cases found on record would lead us to believe. The pus, although of the creamy kind, is sometimes hard and flaky, or thin and dark colored, like coffee-grounds. * * * In quantity it may vary from a few ounces to several quarts. In a case mentioned by L'Hermite, a French author, not less than fifteen pounds were found; the sac that contained it measured eighteen by twelve inches. * * * The matter may find its way into the peritoneal cavity, the stomach, colon, or small intestines, or it may burst through the intercostal spaces, or the abdominal walls. Sometimes the spleen contracts adhesions to the diaphragm, and the matter is discharged into the left side of the chest, and in this way it finds its way into the lung and is finally expelled by coughing."

The diagnosis (says Prof. Da Costa, in his "Medical Diagnosis") of inflammation of the spleen is difficult; Finlayson, in his "Clinical Diagnosis," gives us no information on it.

The treatment laid down by Dr. Wardell, as before referred to, is short: purgatives, cups, blisters, stimulating liniments, later stimulants to the patient.

Aitken, in his "Hand-book of Treatment" says, " Bleeding will

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not cure splenitis, mercury is pernicious," and gives other milder measures.

The late Prof. Trousseau, in his great work on "Clinical Medcine," says nothing, only in connection with intermittent fevers, in regard to splenic disease. So we find but little information, on this subject, and the physician who is away from well-read and careful physicians will often never know what he is dealing with. If he has as high an authority in his office as Prof. Flint's work, he is not enlightened on this affection. Works on clinical medicine are scarce in the country physician's office. I am willing to yield the point in regard to the above cases, if any one will show me from standard works, that, with the symptoms given, and the progress stated of both them, they were something else. I have searched for a report of such a case, but have failed; so has my friend Dr. Sanford. If any of the readers of the COURIER have such cases, on their case-books, I would like to know their experience in treating them.

VICK'S FLORAL GUIDE.—Though not a medical work, we cannot resist the temptation to call the attention of our medical brethren to the beautifully illustrated catalogue of beautiful flowers issued by the Rochester florist. Aside from the duty of the physician to know the therapeutic value of various products of plant life, for which he must look to his text-books, we owe so much of the beauty and brightness of life to the wild and cultivated flowers that whatever makes us more familiar with their forms and colors adds to our own happiness and to our power of making others happy. Much of such suggestion and aid may be found in this pamphlet.

HOME FOR INCURABLES.—Chicago is to have a charity that will be a credit to the philanthropy of its founder. March 7, the will of Mrs. Clarissa C. Peck was admitted to probate. By the provisions of this will the sum of $125,000 is appropriated to the purchase of ground and the erection and furnishing of a building to be known as a home for incurables, and the balance of an estate amounting to upward of $600,000 is given as an endowment for the same.

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EDITORIAL.

CEREBRAL SURGERY.

Quite recently we called the attention of our readers to a bold operation which was performed by Mr. Godlee for the removal of a tumor of the brain, the location of which had been determined by Dr. Hughes Bennett from a careful comparison of paralytic and irritative symptoms.

In the *New York Medical Journal* for March 28, '85 we find a detailed report of a remarkable surgical case which was treated last year in this country by Dr. Fluhrer.

Having observed some three years previously at a post-mortem examination that a bullet which had entered the skull had taken a straight course through the brain to the opposite side of the skull, and rebounding had lodged a short distance beneath the membranes about an inch from the point whence it glanced, he resolved that when opportunity should offer he would endeavor to track the bullet, extract it and drain the wound.

January 24, 1884, a young man, nineteen years old, apparently of good health, was admitted to one of Dr. Fluhrer's ward in Bellevue Hospital with a pistol-shot wound penetrating the brain through the centre of the forehead. On visiting him at 3 P. M. he was semi-unconscious. When aroused he was irritable and in answer to all questions grunted "ja." There was complete loss of motion without loss of sensation on the right-side of the body below the head. The left-side of the body was hyperesthetic. Pupils were dilated and of equal size.

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It was learned that at about half-past four o'clock in the morning he had shot himself with a pistol held in contact with the forehead. He became unconscious immediately, and remained so for about three-quarters of an hour. He then roused up and though weak from loss of blood, left the house, walked about an eighth of a mile, got upon a street-car while in motion, and took a seat inside. He was unable to speak in answer to the conductor's questions, though he knew what he wanted to say. After riding about three-quarters of a mile he was put off by the conductor. He walked about an eighth of a mile farther, and then stood upon the corner of the street till a policeman came and conducted him about a third of a mile to a station-house. There too he was unable to speak in answer to questions, and soon became unconscious. On admission to the hospital at 8 A. M. brain matter was oozing from the wound. Antiseptic dressing was applied.

The scalp was shaven and ether was administered. A flap of gutta-percha tissue was fastened to the forehead so as to protect his eyes from the antiseptic solution of bi-chloride of mercucury, 1 part to 1,000 of water, with which the parts were to be irrigated during the operation.

In using a probe to discover the direction of the wound through the external soft parts and bone he found it necessary to direct its course outward at an angle slightly divergent from the median plane of the head. The right margin of the opening in the skull had a depressed shelving edge. Three incisions were then made, radiating from the bullet-hole as a centre, and some brain matter that had collected between the scalp and pericranium was liberated. The flaps so formed were rapidly dissected back, and the bleeding, which was quite profuse, was in great measure stopped by catgut ligatures applied to the larger vessels, and that from the smaller vessels was checked by traction upon the everted flaps by means of loops of catgut.

The bullet-hole in the skull was about half an inch in diameter, its shape indicating what had already been learned with the

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probe, viz., that the ball in its backward course had diverged at an acute angle from the median plane of the head. The pericranium was cut along lines corresponding to the external incisions and gently pushed back from the vicinity of the bullet-hole. The bullet-opening was then enlarged by removing with bone forceps the over-hanging margin of the outer table. In enlarging this opening a clot was disturbed and there was then persistent arterial hemorrhage from beneath the depressed margin of the bone. On removing the depressed fragment of bone the arterial hemorrhage became alarming and a good deal of time was spent in endeavors to control this, which was finally successful after repeated failures. The bleeding artery was in a small flap of pia mater, and and was finally secured with a small clamp, two attempts to ligate the vessel having failed.

The formidable hemorrhage having been arrested the operator proceeded with the attempt to trace the course of the bullet. He regards the indications afforded by flexible probes as fallacious and utterly unreliable. A Nelaton's probe was passed to a depth of about six inches when a soft resistance was felt, but which no effort was made to overcome. This was left standing in the brain, and by observing the direction of the protruding portion the operator determined the point at which the probe would emerge if carried directly on through the head. Noting the shape of the skull at this place he marked a point with the scalpel about three-quarter's of an inch lower down toward the base of the skull. The probe was then withdrawn, the wound was dusted with iodoform, and the flaps were drawn together temporarily. The point of the scalpel was then thrust down to the bone at the marked spot on the scalp; three radiating incisions were made and the flaps, were rapidly dissected up and retracted. Bleeding vessels were ligated; the pericranium was incised and pushed back and a disc of bone five-eighths of an inch in diameter was removed. The dura mater was healthy but seemed to cover a dark back-ground. Raising the membrane with a tenaculum and slitting it in the

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direction toward the supposed point of emergence of the bullet a small quantity of dark blood oozed out when the brain was pressed upon. This was found on careful examination to be effused blood beneath the dura mater. The trephine hole was then enlarged with forceps, and the dura mater was slit up farther on a grooved director until it was large enough to admit the end of the index finger. Two or three specks of brain matter was seen floating in the blood as it came from the wound. And with the point of the finger the operator was able to feel a resistance in the brain at a depth of about half an inch. Following the "trail of brain matter," still farther extending the opening in the skull and dura mater, more brain matter and a semi-fluid clot appeared,and finally there came quite a gush of brain matter and the opening torn in the pia mater by the bullet as it struck the skull and rebounded became visible. This was about a half inch in length and about three-quarters of an inch above the centre of the trephine. The probe was introduced through the opening in the pia mater in a direction toward the resistance felt by the finger. After passing about an inch it came in contact with the bullet at a depth of about half an inch below the pia mater. This bullet weighing forty-two grains was removed with a pair of anatomical forceps.

Placing the head again in the same position as at first the Nelaton's probe was again gently passed through the wound till it again encountered the soft resistance above referred to. The finger in the posterior wound detected the probe and showed that the dura mater alone intervened. Extending the incision in this membrane slightly the end of the probe came into view. A small rubber drainage tube was drawn through the wound the ends being cut off and transfixed with safety pins. The flaps at either side were brought partly together by sutures. Iodoform was dusted on, the wounds were covered with protective silk, iodoform gauze and borated cotton held between layers of carbolized gauze.

The operation occupied about four hours, the greater part of the time having been consumed in arresting the cerebral hemorrhage.

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Irrigation was kept up continuously with a bichloride of mercury solution (1 to 1,020.)

Without tracing through the clinical history we will mention only as to the drainage that on January 31 the india-rubber tube was removed and a composite drain of catgut and horse-hair was substituted. February 7, the catgut had apparently become absorbed, and part of the horse-hairs were withdrawn, the remainder being removed on the following day.

May 22, 1884 the man was exhibited to a number of physicians at Bellevue Hospital, and seemed to be in perfect health. He was discharged from the hospital June 30, and went to work at his old employment in a butcher's shop August 1, working through some unusually hot weather early in September. September 12 soon after midnight he received a blow on the anterior scar from the elbow of a man with whom he was sleeping. He suffered severe pain for half an hour when it died away and he fell asleep again. He awoke at about four o'clock and found his right forearm beginning to flex upon the arm. Then his right leg was drawn up; then the left upper and lower extremities. Then general convulsions came on.

Bromides of sodium and potassium were prescribed and were continued for some months. He had one slight convulsive attack October 1, but afterwards none.

He now follows the same occupation and discharges the same duties as before the wound was received. At first he could not remember the orders from patrons as he could formerly, but now has regained his memory completely.

Dr. Fluhrer says that if he had found the bullet lodged near the centre of the brain he should have pushed it on and extracted it through an opening made posteriorly. The result in the case recorded indicates that in some cases at least probing and extracting foreign bodies from the brain is advisable.

To what extent this radical treatment will supplant the expectant plan so long taught and practised remains to be seen.

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TREATMENT OF ANGINA PECTORIS BY THE IODIDE OF SODIUM.

Angina pectoris since the days of Gintrac and Lancereaux has been considered as a cardiac neurosis. Although in many cases a diseased condition of the coronary arteries and the aorta has been found, still the symptoms have been ascribed to a nerve disturbance dependent more or less on the innervation of the heart muscle or upon some degenerative change of the nerve fibres. M. Henry Huchard, from a study of twenty-five post-mortem examinations made at "Hôpital Vichart," objects to this view and ascribes the symptoms directly to degenerative changes with obstruction of the coronary arteries. He claims that true angina pectoris is the result of a disease of the arteries and not of the nervous system

In accordance with this theory he advises remedies which have an effect on the arterial system. The iodide of sodium is especially recommended, given in doses of sixteen to thirty grains daily. He continues this medication during months and even years, and claims to have given complete relief and to have produced a cure of this dreaded disease in many cases. He thinks that the iodide of sodium probably acts by lowering the blood tension, relieving the walls of the artery and favoring the disappearance of the pathologic exudation. For the relief of the paroxysm he recommends the inhalation of the nitrite of amyl in four to six drop doses.

Although true angina pectoris had been assumed to be a neurosis, the remedies which have been most successfully employed have been those acting upon the arterial system. Occurring as it does at the ages when degenerative changes in the arteries are found and in subjects of such degeneration, it would seem that the theory advanced by Huchard should be carefully considered. That it is generally accompanied by high arterial tension has been already recognized, and the drugs have been most successfully used which reduced this tension. Dr. Lauder Brunton has long since recommended the nitrite of amyl in reducing blood pressure, and

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we are indebted to Dr. Murrell for our knowledge of the value of nitro-glycerine as a remedy producing the same result. Both remedies have been successfully employed in relieving attacks of angina pectoris, but neither has been able to effect a permanent cure.

That the iodides from their well-known action of lowering the blood pressure and at the same time favoring the disappearance of pathological exudations may exert a healthy action in the earlier stages cannot be denied, but in cases connected with well developed atheroma more evidence is needed before it can be positively accepted.

PROF. HYRTL'S JUBILEE.

The 24th of March, Prof. Hyrtl, the celebrated anatomist of the Vienna Medical School, received at the hands of his colleagues and admirers a flattering testimonial of their respect and good will on occasion of the Fiftieth Anniversary of his doctorate. The name of Hyrtl is well-known in America more especially through his delicate anatomical preparations by the corrosive method and his injections of the minute vessels for microscopic study. Hyrtl was born in 1811 at Eisenstadt, Hungary; he graduated in medicine at Vienna in 1835, and shortly was appointed Professor of Anatomy, at Prague; where he remained till 1847, when he was elected to the same chair in the Vienna University. Hyrtl resigned this position in 1874 and has since lived in retirement, enjoying good health with the exception of impairment of sight brought on no doubt by his long and excessive use of the eyes. Hyrtl's writings in anatomy are characteristic; his topographical anatomy is crowded with quotations, classical and modern, that serve to illustrate and otherwise lighten the labors of the student; so that the reader reads on, attracted by the manner of the chapters, as well as by their scientific contents. Hyrtl apparently enjoyed acting as cicerone himself amidst his treasures ranged in the galleries of his museum

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at the Algemeines Krankenhaus, a place so well known to many Americans. Probably not even the wonderful collection of skeletons of fishes, a marvel of patient skill, and the coarse injections, excited the admiration elicited by his famous "corrosion" preparations. The kidney prepared by differently colored injections of arteries, veins, and ducts and subsequent removal of all soft parts by maceration in acid, the whole being then varnished and mounted—constituted an object of scientific value and the greatest beauty. Hyrtl made extensive studies of the labyrinth of the ear, by molds obtained through the same method.

ABDOMINAL EXPLORATION EXTRAORDINARY.

Prof. Billroth described before the Vienna Medical Society (*W. Med. Woch.*, No. 9, 1885), an exploration of the abdomen in search of a foreign body, that possesses a unique interest. A girl, aged 19; during sleep swallowed a plate with false teeth. By vigorous efforts at swallowing she forced the teeth down to the cardiac opening. Attempts at extraction failed and she entered the clinic. A bougie passed readily into the stomach, therefore the foreign body must have passed into it also, while rather large bodies may pass the cardiac opening, the pyloric offers a difficulty, especially to such an angular body. The girl did not complain of much pain, though the stomach was sensitive; nothing could be felt. As the declaration of the patient as to the accident was positive, Billroth resolved to perform gastrotomy, which was done and forceps introduced into the viscus, but in vain. The stomach was then drawn out, as much of it as possible; still nothing of the plate. The external wound was enlarged, the hand introduced and the abdomen searched; still nothing appeared to reward a thorough exploration, as will appear. Finally in the upper part of the stomach the body was found and removed. Billroth took advantage of the state of things to make what certainly will appear to be an exhaustive investigation of the abdomen and its contents, and gives

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an account of the consistency, etc., of the various organs. The liver during life is so soft that is not easily distinguished by palpation from the intestine; both kidneys could be pushed downwards one inch, and were remarkably movable; the uterus and ovaries were firm. On account of its attachment to the diaphragm the upper part of the stomach cannot be drawn down to the abdominal wound; hence a foreign body lodged in that region must be specially sought after.

DELICATE TESTS FOR URINE.—Dr. Henry B. Millard after many thousand tests of albuminous urine and of artificial solutions of albumen states that by heat and nitric acid it is possible to detect one part of albumen in 100,000 parts,and by Tanret's double iodide of mercury and potassium test, or by his own phenic-acetic acid and potash test to detect one part of albumen in 200,000 parts.

For delicate testing the tubes must be clean and bright, there must be a clear light and a dark back-ground. In using heat and nitric acid the urine, if not perfectly clear, should be boiled with about one-fourth its weight of liquor potassæ and filtered, and for the heat-test should then be rendered slightly acid with acetic acid.

The double-iodide test is well-known.

The phenic-acetic acid and potash test is prepared from the following formula:

℞	Acid. phenic. glacial (95 per cent.) - - -	ʒij
	Acid. acet. pur. - - - - - - -	ʒvij
M.	Adde liquoris potassæ - - - - -	ʒij,ʒvj

Though this gives a precipitate with strong solutions of quinine and strychnine and the peptones, this readily disappears upon the application of heat and with alcohol. The cloudiness caused by the gum resins and copaiba disappears by alcohol.—*Med. Record*, April 4, 1885.

ANOTHER MEDICAL NOVELIST.—According to the *Lancet* the author of "Charley Kingston's Aunt" is the well-known surgeon Sir Henry Thompson.

"Doctor Grattan" is the title of Dr. Hammond's second novel.

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TRASNLATIONS.

"NASAL POLYPS."

BY DR. CHARLES CHIARI, DOCENT IN UNIVERSITY OF VIENNA.
[TRANSLATED BY DR. OTTO FORSTER, VIENNA, AUSTRIA.]

The expression nasal polyps may be taken in a narrow or broad sense. In its narrow meaning we may understand thereby the so-called mucous polyps, for which tumors alone in the beginning the expression "polyp" was chosen, and indeed rightly, for their almost jelly-like, translucent character, their pedicellated attachment and the fact that they often fill up every crevice and corner of the nose certainly cause them to resemble this animal with its numerous processes. In the broader sense may be included also all other tumors (even if not distinctly pedicellated) of the nose and naso-pharynx, which have there either entirely or in part their seat and origin, as the papilloma, fibroma, sarcoma, carcinoma, eochondroma, osteoma and the adenoid vegetations.

In what follows I shall, however, speak chiefly of the mucous polyp, which appears as a more or less translucent, grey, greyish-red or reddish-yellow, soft, often distinctly pedicellated, movable and almost insensitive tumor, originating from hypertrophy of the mucous membrane and not implicating the neighboring tissue, but distinguished by great persistence in returning.

The remaining tumors will only be casually mentioned.

Frequency.—Before, however, we approach a closer description of the mucous polyp we must briefly make mention of their absolute and relative frequency. Michel found among 550 patients with nasal disease 135, about 25 per cent., affected with mucous polyps, against only one papilloma, and, accepting his assertions, four malignant tumors. Hopmann found among 100 cases of tumor formations 79 mucous polyps, 15 papillomata, and among 25 cases of benignant polyps only 6 papillomata.

Schaffer in 120 cases of tumors, 102 mucous polyps, 7 teleangie-

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tatic tumors (as he calls circumscribed hypertrophies on the anterior extremity of the inferior turbinated bone) 8 fibromata and 8 carcinomata. It therefore appears from these data that mucous polyps belong not only relatively but also absolutely among the most frequent diseases of the nose.

Anatomy.—Macroscopically the mucous polyps appear as soft, grey, pale red or yellowish, often jelly-like, translucent swellings with smooth surfaces. Older forms are frequently compact, opaque; the more recent on the contrary, often give the impression of a sac filled with fluid, and on moving them the feeling of fluctuation (Zaufal). Indeed a fluid may be pressed out of them.

Imbedded in the soft substance may often be felt small nodules of harder consistence, which on section appear as hollow spaces filled with a clear, serous, or glassy or more slightly cloudy fluid. The vessels, generally few, are largest near the base and diminish from thence gradually dividing toward the surface,on which usually a fine net-work is found. The size of these polyps varies greatly; all gradations are met with from the circumference of a hempseed to that of a hen's egg. Their form is sometimes round, sometimes compressed; their attachments to the mucous membrane are sometimes drawn out to a thin pedicle, sometimes short and broad. Under the microscope one sees first of all on the surface a ciliated epithelium; only in places which are *exposed to more varied injuries* and especially those parts projecting outwardly, is found a kind of pavement epithelium. Papillæ are completely wanting. The chie substance varies; sometimes it consists of a very fine and short fibrous tissue in which many nodules are scattered but which is wanting in special fibrous fasciculi and elastic fibres (Billroth)· sometimes of a basket work of aveolar connective tissue whose meshes are filled with a very fine network containing round cells (Hopmann); sometimes it is said that one can observe in these polyps every gradation from loose and soft connective tissue to firm and compact (Forster). The largest vessels lie near the pedicle and diminish from here, gradually dividing toward the periphery.

Glands are not always found in mucous polyps. Billroth saw them in some cases in such numbers that they formed the principal ingredient of the whole structure, and considered them as newly organized, but as not having reached the same stage of development as those in the nasal mucous membrane.

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Hopmann, on the contrary, found them in jelly-like edematous mucous polyps only very seldom, and then mostly as small cut off remnants; only in polypoid hypertrophies near the base are racemous glands fully developed. There appears to exist great uncertainty as to their participation in the formation of these tumors. Through the extension then of these glands, be they newly formed or older, are formed the above described cysts from the size of a pin's head to that of a pigeon's egg. Their walls are formed from the basis substance and covered with epithelium of various shapes. Their contents are glassy, or serous, or milky and can undergo a mucous fatty or colloid degeneration; calcification has also been observed. Nerves were found by Billroth in only a single instance, in a polyp, 3 m.m. long, as small trunks whose fibres extended on to the surface.

From the fact that occasionally all the ingredients of the mucous membrane participate in the formation of the mucous polyp, they are considered by most authors, following Billroth, as true hypertrophies, while Hopmann calls them soft edematous fibromata which, however, can exhibit every gradation to hypertrophied mucous membrane.

Etiology.—Consequently the conclusion is justified that the origin of polyps may be traced back to such simple hypertrophies of the nasal mucous membrane, as they occur so frequently through chronic catarrh. So one finds always near them some hypertrophied spots and can often see for himself upon the living every gradation from a fold of the mucous membrane to a jelly-like polyp. One can observe this better still in the copies of many sections which Zuckerkandl has given us. It is therefore certain that hypertrophies can develop into polyps, but they do not always; for this reason we must assume that a certain to us unknown disposition is necessary. According to Billroth the age from puberty to thirty years seems to have a special influence in this direction, and indeed more men than women suffer from this disease.

Number. Concerning the number of polyps, they occur almost never singly, but mostly in numbers up to fifty and sixty. This can be explained from the manner of their origin from certain hypertrophies which usually appear in the plural. Also both nasal cavities are commonly affected.

Situation. In earlier times the situation of nasal polyps was

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placed wrongly far above on the upper wall of the nasal cavity; even Voltolini sought them chiefly there in the beginning. More exact rhinoscopic examinations, but especially Zuckerkandl's sections have shown that in most cases their attachment must be sought on the lateral wall and especially on the ethmoidal turbinated bones and on the lips of the hiatus semilunaris and on the edge of the ostia ethmoidalia and maxillaria. Therefore one must in practice chiefly bear in mind the middle turbinated bone and its neighborhood, but at the same time must not forget that, although less often, polyps may arise from the septum, the inferior turbinated bone and other parts of the nose. If we examine on an anatomical specimen the region of the hiatus semilunaris we will understand that it must often remain impossible to see or remove small polyps situated in the crevices of the lateral wall of the nose, a circumstance which will often make a complete cure questionable even with the most careful management of the rhinoscope. Mucous polyps may also appear in the antrum of Highmore and in the frontal ethmoidal and sphenoidal sinuses. Zuckerkandl has observed them in the antrum of Highmore as pedicellated tumors of the membrane, as bands stretched across the walls of the sinuses, and as more diffuse hypertrophies. Much more rarely do they occur in the frontal sinus and cuneiform sinus. The symptoms which they then call forth are often so insignificant that they do not come to the knowledge of the patient. In other cases they may through irritation of the membrane produce symptoms of inflammation with swelling of the skin over these parts and neuralgias of the corresponding nerves, or through cystic degeneration produce expansion of the bony walls, and simulate hydrops of these cavities. Their diagnosis can only occasionally be possible.

Growth. In spite of this most contracted place of origin the polyps may extend far both forwards and backwards; indeed they may at last completely fill the entire nasal cavity. In the first place they occupy the middle meatus, but soon extend and reach the inferior turbinated bone, and may even in the most neglected cases make their appearance at the anterior nasal opening. In the same way, if they arise more posteriorly, they reach the choanæ and grow out into the naso-pharyngeal space. Their size and shape are essentially modified by the existing space; in narrow noses they are small and pressed flat; in wide noses large (even larger than a nut) and rounded. They attain their greatest size in the naso-pharyngeal

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space, where their growth is not hindered; hence they not seldom become as large as a hen's egg and round, and may extend below the velum. In general their attachment, corresponding to their origin from hypertrophied mucous folds, is usually broad; but, probably in consequence of long continued traction, nicely pedicellated forms sometimes appear.

If the polyps remain a long time undisturbed, they finally exercise an important continuous pressure upon the turbinated bones and septum, resulting partly in atrophy of these parts and partly in their yielding; whereby the outward form of the cartilaginous portion of the nose may be essentially altered, and the nasal cavity so enlarged that one after the operation can easily introduce his finger (Albert). The bony portions of the nose offer to their growth, for the most part by their pressure, an invincible resistance.

Degeneration. With a longer continuance of the polyps in the nose alterations in their structure may take place; the mass at first jelly-like becomes firmer and changes into fibrous connective tissue; or cysts form through the enlargement of the gland, and from the extension of these cysts the remaining substance becomes reduced to a thin membrane. One sees such polyps through rough manipulation burst and apparently disappear, only however to be soon refilled and reappear in their former size. The contents of these cysts are either serous, glassy or milky, through fatty degeneration of the contained cells, or wholly mucous. The basis-substance also may undergo such a mucous degeneration that one can wind it up like a ribbon on a pair of forceps and in this way draw long threads from the nose as Albertie has described in his surgery.

Frerichs calls the teleangiectasis the condition of congestion and inflammation of mucous polyps, but Billroth holds it as doubtful if he has ever observed such conditions. It is claimed by the older authors that mucous polyps may become carcinomatous. Billroth demands with justice the proof for this claim, that one and the same tumor should be confirmed as at first mucous polyp and then as carcinoma. On the other hand, it is easy to believe that in case of a man who formerly suffered with polyps, a carcinoma might be later developed. The two tumors have then connection only in so far that in a man whose nasal mucous membrane is disposed to new formations constitutional conditions may develop under whose influence the next production may assume a malignant character.

Relapses. When one considers that the polyps origi-

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nate from hypertrophied portions of the mucous membrane and in their growth are alone hindered, essentially, by the narrowness of the space, one can understand that they must reappear if all those in the neighborhood of the hypertrophied parts are not thoroughly removed. It can, for example, happen that small neglected polyps first have proper room to grow after the removal of the large ones, and in a short time become as large as those first removed. Or they may not be completely extirpated, but only torn off, in which case a new polyp will develop from each root, as Voltolini accurately observed in one case. Or, finally, the hypertrophied membrane may still be left. The aim of the operation is therefore to completely remove all polyps and hypertrophied membrane and then to thoroughly cauterize the base.

Since it is very difficult to bring the deep corners of the nasal cavity thoroughly into view, there always remains the possibility of a reappearance. This question is connected with the manner of operation aud cannot be fully discussed until in that chapter. In spite of the inclination to a return one cannot consider the nasal polyps as malignant tumors, since they do not extend beyond their source of origin (the mucous membrane), affect no glands and undergo no metastasis.

Sequelæ. With all their benignancy, however, they may produce very unpleasant sequelæ. These are various according to their greater or less development, their situation and the sensitiveness of the individual. Only in this way can it be explained that cases of enormous nasal polyps are occasionally observed which cause no complaints. In the beginning of their development they may exercise a constant irritation on the nerves of the mucous membrane, and thereby give rise to various nervous complaints but especially to attacks of asthma, which appearance Hack has considered as a reflex neurosis, the origin of which is connected with the erectility of the Corpora Zuckerkandli (said to be similar to the corpus cavernosum) on the anterior extremity of the inferior turbinated bone. Should the polyp become so large that it compresses these bodies, then these reflexes cease for the most part. For this reason these nervous complaints come comparatively seldom under observation in connection with nasal polyps. Thus Michel found in one hundred and thirty-five cases not a single case of asthma; Hack, on the contrary, in forty-three cases of well developed polyps found five. Hack was able to prevent the parox-

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ysms by destroying these erectile bodies in some cases even without the removal of the polyps. The operation for the polyps alone is often sufficient.

Apart from this nervous irritation they almost always cause, from irritation of the membrane and stasis in its vessels a profuse mucopurulent, often stinking discharge, here and there also hemorrhage from the nose. By obstructing the passages from the frontal sinus and antrum they may produce the retention of secretion and catarrh of these space with all their unpleasant consequences, as neuralgias, distension of these cavities, etc. Should they close the entrance to the nose, they render the perception of smell impossible.

Should they become so greatly developed that they impede the circulation of air through the nose, all the difficulties of atresia narium appear. The voice becomes nasal, the mouth remains open; in consequence the countenance assumes a sleepy, imbecile expression; the mucous membrane of the upper air passages immediately becomes irritated, since the air is not purified and warmed in the nose, and is put in a condition of chronic catarrh. The feeling of dryness in the pharynx, frequent acute catarrhs of the larynx and bronchi are the results.

Polyps extending into the naso-pharyngeal space may cause disturbances of hearing, choking and difficulty in swallowing. When we add to all these sequelæ the above mentioned disfiguration of the external nose in some cases we must not and cannot consider nasal polypus an indifferent malady.

Diagnosis. Only when the polyps extend nearly or quite to the anterior nares can the diagnosis be made by simple inspection alone or conjoined with elevation of the point of the nose; however a polyp extending down below the soft palate may be seen by depressing the tongue. In all other cases (and these are the great majority) rhinoscopy must be employed.

We see then, the nasal entrance being enlarged by means of the bivalve speculum with sufficient illumination from the reflector, mostly in the region of the middle turbinated bone grey, greyish-red, or light red, or ragged tumors which often extend to the inferior turbinated bone,or the entire lumen is filled with such growths. The diagnosis is easy when the polyps are decidedly grey and translucent and so little wedged in that they easily move in the current of air. Often they are, however, red, opaque like the rest

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of the mucous membrane. In this case we must call the sound to our aid; they prove themselves then soft, almost insensitive and easily displaced. If they are yet small and extend outward from the middle turbinated bone they may be completely concealed by this or the swollen inferior turbinated bone. In order to see them then it is necessary to press aside with a flat sound the membrane of the turbinated bones. Not seldom polypi lying more posteriorly escape the eye looking into the nose from the front, either on account of the narrowness of the nose or swelling of the membranes. In these cases posterior rhinoscopy comes into use, which one must besides use in order to ascertain whether in the choanæ or pharyngeal vault other new formations may not be concealed. Another expedient is the use of Zaufal's speculum, although on account of the smallness of the field of view an accurate diagnosis by this method is difficult.

Finally one can introduce the finger by the mouth into the pharynx if the patient under examination on account of too great sensitiveness cannot endure the posterior rhinoscopy. With some practice, however, it is easy by this means to touch the septum and the posterior turbinated bone and so detect a polyp of any size. In all cases we must seek to discover the seat of attachment of every polyp and the length and thickness of its pedicle, although from the above mentioned reasons we can with even more difficulty see the place of origin than the tumor itself. This knowledge will in any case render the operation much easier.

Differential Diagnosis. 1. Unusually prominent portions of the middle turbinated bone may be mistaken for polyps, especially if their mucous membrane is pale or greyish. Touching them with the sound, however, reveals a hard, immovable, sensitive body.

2. Cartilaginous or bony excrescences or decided curvature of the septum are in the same way by hardness and immovability sufficiently characterized.

3. Swellings of the corpora Zuckerkandli of the inferior turbinated bone, especially on its anterior and posterior extremity, are often grey, almost translucent, soft, movable and but little sensitive. They have, however, an important diagnostic sign; they are retractile and change their volume often in a short time.

4. On the inferior and middle turbinated bones appear often circumscribed or more diffuse hypertrophies of the mucous membrane,

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which are not unfrequently pale, and resemble polyps on account of their insensibility and softness and which, as above stated may indeed, especially on the middle turbinated bone, result in the same.

5. Hopmann, in Cologne, has described under the name papilloma, broad-based, often translucent tumors with papillated surfaces, which extend exclusively from the inferior turbinated bone and are supplied with large glands and hyperemic vessels. They are mostly small.

6. Fibromata and fibro-sarcomata occur frequently with very numerous and enlarged vessels in the posterior part of the nose and the naso-pharyngeal space. They are known under the name of the naso-pharyngeal polyps, and arise mostly from the periosteum of the base of the skull, the os basilare and pterygoid process and are broad-based. (However some cases of pedicellated fibromata of the posterior turbinated bones are known.—Stork). Their surface is smooth or roughened, their consistence hard. On account of their richness in vessels they bleed very easily and thereby endanger life; on this account and because of their unlimited growth (they penetrate often into the cranial cavity) they belong to the malignant tumors. According to Nelaton they appear only at the time of puberty in males.

Besides fibromata of the spheno-palatine fossa occasionally grow into the naso-pharynx and nose, whence they may again extend toward the orbits. All these considerations make the separation from nasal polyps easy.

7. Adenoid vegetations in the naso-pharynx arise from hypertrophy of Luschka's tonsil, and appear as soft red, pin, or finger-shaped processes depending from the base of the skull, or as flat swellings and elevations from the region of Rosenmüller's fossa. They may block more or less the choanæ, render the entrance to the Eustachian tube impassable and so produce occlusion of the nose and impair hearing. They occur in youth. Their diagnosis is easily made by posterior rhinoscopy, since we find the choanæ entirely or partially blocked up by rough red masses or projections. Not seldom it is possible when the nose is not altogether too narrow, to see them from the front, especially during the act of phonation and swallowing, since they are thereby raised through the elevation of the soft palates.

Finally the finger introduced into the naso-pharynx can feel

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them as soft, wormy structures, which surround it from all sides and which must first be pushed aside to touch the septum of the choanæ. They are benignant and do not recur. Michel observed this affection 94 times in about 535 cases of nasal troubles.

8. Sarcomata and carcinomata of the nasal cavity are in the beginning of their development often papillated, and soon make themselves noticed through their tendency to bleeding and ulceration. In later stages the latter show a great tendency toward infecting the neighboring lymphatics and both toward quick growth with decided deformity of the bony portion of the nose, and toward extension into the neighboring portions of the face. Even before this not infrequently a net-work of vessels appears in the skin of the nose, which is always a bad sign. At last, as with all malignant tumors, the sanies and great loss of blood produce cachexia. After what has been said the differential diagnosis can be difficult only in case of soft, small, not yet ulcerated swellings. In such cases the histological examination of a small excised portion will help us.

9. Certainly cerebral hernias (encephalocele and meningocele) may force themselves into the nasal cavity through a defect in the bone, between the ethmoid and frontal bones, and it is conceivable that they might he taken for polyps. Now since every operation on such cerebral hernias, indeed even a simple puncture is generally followed by fatal meningitis, we must at least consider the possibility of such an event. Fortunately these formations are very infrequent and almost always easily recognizable. The considerations which are to be taken into account in their diagnosis are the following:

They are congenital; at their upper extremity can be clearly felt the defect in the bone, and often their contents are somewhat reducible; by pressure upon them we can occasionally cause cerebral disturbances, as dizziness, fainting, convulsions, etc.

10. The discrimination of polyps from retro-pharyngeal abscess, exostosis and tumor of the soft palate can scarcely ever cause difficulty, so that it will suffice merely to mention these affections, which may occasionally occlude the nose.

The prognosis of mucous polyps as to life is to be held decidedly favorable; on the other hand, the prospect of permanent cure on account of their great tendency to return will be very small and dependent essentially on the exact completion of the opera-

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tion. Concerning the remaining forms of tumors, the naso-pharyngeal polyps, the sarcomata and carcinomata from their malignancy offer a decidedly unfavorable prognosis, while for the papillomata and adenoid vegetations a permanent cure may be promised.

[TO BE CONCLUDUED.]

THE CHICAGO MEDICAL JOURNAL AND EXAMINER announces the withdrawal from the editorial chair of Dr. James Nevins Hyde, who has been the senior editor of that ably conducted journal for some years. Pressure of other work prevents his continuing longer the onerous responsibilities which he has carried with so much of credit to himself and advantage to the *Journal and Examiner*. We sincerely regret that Dr. Hyde is constrained to take this step and trust that his other work is much more remunerative than that of an editor ever becomes.

MEDICAL AND SURGICAL SOCIETY OF WESTERN ILLINOIS.—The regular quarterly meeting of the Medical and Surgical Society of Western Illinois was held at Carrollton, May 5, and the following were installed officers for the ensuing year: Dr. C. Armstrong, Carrollton, President; Drs. J. L. Rollins and L. English, Vice-Presidents; Dr. G. W. Ross, Carrollton, Secretary; Dr. J. F. Potts, Whitehall, Treasurer; Drs. Chapman, F. A. Clement and W. C. Day, Censors.

Papers were read by Dr. Redwine, of Whitehall, on "Dyspepsia" and Dr. C. Du Hadway, of Jerseyville, "A Resumé of Advances in Surgery and Medicine."

Delegates were appointed to the Illinois State Medical Society and to Medical Society of Mississippi Valley. Next meeting occurs at Jerseyville, August 4. G. W. Ross, Secretary.

BERLIN AS A MEDICAL CENTRE.—A volume under this title from the pen of Horatio R. Bigelow, M. D., of Washington, D. C., has been issued this month by the New England Publishing Co., Sandy Hook, Conn. This book is intended to be a complete and accurate guide to the physician, or medical student visiting Berlin, giving full information concerning board, clinics, lectures, expenses, etc. The price will be $2.

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SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

The Thirty-Sixth Annual Meeting of the American Medical Association was held in New Orleans, commencing April 28; the session was concluded Friday May 1. In numbers the meeting was not up to the usual average. Eight hundred delegates were registered and these were largely from the south and west. There was a marked absence of many well-known men from the east whose faces are often seen at the meetings. The great distance, and the fact that the meeting was supposed to be held in an overcrowded city during the beginning of the hot term may have kept many away who would otherwise have been present. Those, however, who made the long journey were amply repaid for the time devoted to it.

In the general sessions there were several matters of especial interest. The presiding officer, Dr. Henry F. Campbell, of Georgia, was very ably assisted by the First Vice-President, Dr. J. S. Lynch, of Maryland. Dr. Samuel Logan welcomed the delegates in a happy cordial address which won a hearty response.

The president's address was well received, and Dr. T. G. Richardson, in the absence of Dr. Austin Flint, read the address of the Committee on the Death of Prof. S. D. Gross.

The close interest and attention given the speaker showed the great influence exercised over the general profession by the lamented surgeon.

The report of the committee appointed last year to invite the International Medical Congress to meet in the United States in 1887 was read by Dr. J. S. Billings, U. S. A. Owing to an unfortunate looseness in wording the resolution by which the committee was appointed, a radical difference of opinion in regard to the powers of the committee seems to have arisen between the committee and the body of the association. In the discussion which arose on the report, moderate counsels prevailed, and we trust that

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the enlarged committee will work harmoniously and wisely.

The following explanatory declarations concerning the proper interpretation of the Code of Ethics were read by Dr. N. S. Davis, of Chicago, as chairman of a special committee on the subject, and unanimously adopted by the association:

WHEREAS, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community and some even in the ranks of the profession are led to believe those provisions exclude persons from professional recognition simply because of differences of opinions or doctrines; therefore be it

1. *Resolved*, That clause first, of Art. IV, in the National Code of Medical Ethics is not to be interpreted as excluding from professional fellowship on the ground of differences in doctrine or belief those who in other respects are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice.

2. *Resolved*, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper, to assume a name indicating to the public a sectarian or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

3. *Resolved*, That there is no provision in the National Code of Medical Ethics in any wise inconsistant with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot correctly be interpreted as interdicting, under any circumstances, the rendering of professional services, whenever there is a pressing or immediate need of them. On the contrary, to meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecesary delay is a duty fully enjoined on every member of the profession, both by the letter and spirit] of the Code. But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

It was further agreed by a unanimous vote on a motion of Dr. Keller that these resolutions be added as an explanatory addendum in all future publications of the Code.

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With regard to the *Journal of the Association* it was determined to continue its publication in Chicago under the editorship of Dr. N. S. Davis, who, at the earnest solicitation of the Board of Trustees, consented to withdraw his resignation and continue his services. The report of the editor and Board of Trustees make a very favorable showing for the *Journal* which is yet less less than two years old. The regular weekly circulation of the *Journal* at this time is a little over 4,000 copies. The total receipts from all sources on account of the first year of publication of the *Journal* up to the date of the editor's report was $16,371.59, a very creditable showing for a new enterprise, all the expenses being covered by these receipts.

The amount of work done by the different sections was about equal to the average—a great improvement is urgently needed and more life must be put into the section work. The sections on obstetrics and surgery are usually well attended, but in the others there is always a great lack of zeal and interest. It is probable that the subdivision of the Section on Practice of Medicine into minor sections has been an injury rather than an advantage, and the time will probably come when the specialties as such will be amalgamated in the general department.

In marked contrast to the experience of several previous years, the Committee of Arrangements had made a systematic and sensible provision for the registration of the members, and the great crowding and innumerable annoyances were avoided. We congratulate them upon the entire success of their efforts. The social features of the meeting were very pleasant, and the association will remain indebted to the physicians and citizens of New Orleans for a charming visit to their very pleasant city.

The association adjourned to meet in St. Louis on the first Tuesday in May 1886. We bespeak for them a hearty welcome for all.

The following are the officers for the ensuing year:

President, William Brodie, Detroit, Michigan. First Vice-President, Samuel Logan, New Orleans, La.; Second Vice-President, A. T. P. Garnett, Washington, D. C.; Third Vice-President, Charles Alexander, Eau Claire, Wis.; Fourth Vice-President, W. F. Peck, Davenport, Iowa. Permanent Secretary, Wm. B. Atkinson, 1400 Pine St., Philadelphia. Treasurer, Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa. Librarian, C. H. A Kleinschmidt, Washington, D. C.

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MISSOURI STATE MEDICAL SOCIETY.

The St. Joseph meeting of this Association, while somewhat smaller in numbers than some of the largest meetings, yet found a goodly number enrolled, something over one hundred and twenty names appearing upon the register. The meeting was called to order by Vice-President Evans at 10 A. M. Tuesday, May 12, the president, Dr. H. H. Middlekamp not having yet arrived. The mayor of the city extended a formal welcome to the Association and an appropriate response was made on the part of the Association by Dr. J. H. Trader, of Sedalia who was called upon by the presiding officer.

At the afternoon session, after the reading of the minutes and report by the Committee on Credentials of the names enrolled, the scientific work of the association was inaugurated by the reading of a paper "On Cholera" by Dr. J. H. Trader, of Sedalia. (This will be published in the COURIER).

Several members took part in the discussions on this paper. All seemed to think well of the suggestions as to the value of hypodermic medication in this disease, but there was very great difference in the views expressed with reference to the germ theory.

Dr. Stringfellow, of St. Joseph, had seen best results in '49 from the "calomel treatment." He thought well of the administration of the bichloride of mercury in small doses as a prophylactic, on the theory that it would be easier to kill one bacterium than a quart of them.

Dr. Hughes, of St. Louis, referred to the tannic acid treatment—believed germicide treatment of value at a certain stage. Success is to be found only in prevention.

Dr. Hanna, of Centralia, told a humorous story of the treatment that was recommended to him for the cure of bots in a colt. He thinks there is "a good deal of stuff about the germ theory of disease and germicide treatment.

Dr. Hurt, of St. Louis, favors germicide treatment as prophylactic.

Dr. Fischel, of St. Louis, does not think any theory of causation has been demonstrated. He called attention to the inoculation experiments now being carried on in Spain and recalled the

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practice of the late Dr. Hodgen, administering atropia as a stimulant to the heart to bridge over the time of special danger.

Dr. Prewitt, of St. Louis, said we have no curative treatment. Patients die in collapse, which, in all essential features, is identical with shock following surgical operations or accidents. He thought the hypodermic injection of morphia or of morphia with atropia gives the best promise of successful issue.

Dr. Heddens, of St. Joseph, said that in cholera epidemics as many die from panic as from the disease, and certainly panic was not a germ product.

Dr. Brandt, is a strong advocate of the germ theory and thinks that inasmuch as the germs are composed of so delicate an albuminoid structure it must surely be a very easy matter to destroy their vitality. It would simply be necessary to administer something to coagulate the albuminoid material.

Dr. B. F. Wilson, of Salisbury, don't believe in germs as a cause of disease at all. They feed upon dead tissue, act as scavengers and do not prey on living tissues.

Dr. Sloan, of Kansas City, called attention to the fact that treatment of every kind has always failed in the early part of an epidemic while the lines of treatment that have given good results have uniformly been those adopted later in the course of the epidemic when the epidemic influence had diminished and the success of such modes of treatment in his opinion was due to the diminished effect of the epidemic influence.

The next paper was read by Dr. J. C. Mulhall, and was entitled "Atrophic Nasal Catarrh." (Vid p. 481).

Drs. Trader, *Catlett*, *Harrison* and *Simmons* spoke with reference to some of the points advanced by Dr. Mulhall. Dr. Simmons was disposed to think that specialists were responsible for the prevalence of diseases, implying that in many cases the imagination of the patient was stimulated to the advantage of the specialist.

Dr. Rumbold directly denied some of Dr. Mulhall's assertions, claiming that the atrophic condition is always an advanced stage of the same disease which previously is hypertrophic, and that the adjacent cavities are almost invariably involved and are the source of the muco-purulent discharge and crusts.

Dr. Mulhall made a spirited defence of the specialists against insinuations made by Dr. Simmons, and referred to the extensive and

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accurate investigation of Zuckerkandl as proof of the correctness of the position which he had taken concerning the pathology of the disease.

Dr. Todd, of Kansas City, was here granted permission to explain his views with regard to the treatment of cholera as he was not present during the discussion of Dr. Trader's paper. He repeated the essential features of a paper which he published recently in the *Journal of the American Medical Association*. He suggests the injection into the cellular tissue of a large amount (four ounces) of a bland watery fluid resembling serum. He would also give hot drinks with sulphuric acid.

Dr. Hughes then occupied twenty-eight minutes in reading a paper as a report from Sub-committee on Psychological Medecine. The title of the paper was "Some Neglected Precursory Symptoms of Brain Disease." He referred specially to changes in disposition, temper, character, manner of working or capacity for work.

Dr. Catlett endorsed what Dr. Hughes had said and cited cases of his own confirming it. Dr. Mudd called attention to the importance of more careful study of nervous symptoms in the light of modern researches in cerebral localization, and referred to the influence of the nervous system in determining the results of surgical operations and injuries.

At the evening session Dr. J. H. Thomson, of Kansas City, read a well written report on recent progress in ophthalmology, noting particularly the use of jequirity and cocaine, nerve-stretching as a treatment for glaucoma, and commending the tendency to discard cutting instruments and use small probes in the treatment of stricture of the lachrymal duct.

Dr. F. J. Lutz, of St. Louis, read a paper on "Diseases and Treatment of Cicatricial Tissue." (This paper will be published in the COURIER.

Dr. Prewitt in discussing this referred to cases of his own in which malignant degeneration, epitheliomatous as well as sarcomatous, had occurred in cicatricial tissue. He spoke of the work done by Dr. Post of New York, in treating deformity from cicatricial contraction following burns. He reported also some cases in which he had successfully operated for the relief of deformity caused by depressed scars adherent to subjacent bone. He made subcutaneous section, releasing the scar from the bone and then by deep sutures brought the two parts of the incision

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into position and raising the depressed part to its normal level.

Dr. Kingsley read a paper on "Malaria in Children" which we shall present to our readers in full.

Dr. Mudd, of St. Charles, said that he had had good results in the treatment of malarial in children from the application of a pad into which a dram or more of quinine was quilted. This was dipped in alcohol and bound upon the epigastrium.

Dr. Nelson, of St. Louis, reported the case of an Armenian child two years old whose spleen was so enlarged that the lower border extended to the crest of the ilium. This had been reduced to a normal size after about ten day's treatment. He also stated that in infants under one year of age inunctions of quinine rubbed up with fresh lard had given him satisfactory results.

Dr. F. M. Johnson, of Kansas City, thinks that the idea that children do not have chills is an erroneous one. He thinks that the evidence of this is seen in the blue, cold nose, fingers, ears and toes, and the disposition to sleep in the warm sunshine. He thinks this is an explanation of the popular superstition that playing in the sun gives children the malaria.

Dr. Stringfellow don't believe that the children have malarial fever. He has for some years discarded quinine in the treatment of fevers in children, and has better results from small doses of calomel. He thinks in a good many cases it is worms instead of malaria.

Dr. Fischel, of St. Louis, stated that he also had discontinued quinine in the fevers of childhood and was using small doses of calomel.

Wednesday morning a committee was appointed to audit the accounts of the Treasurer. Also the following gentlemen were appointed a nominating committee: Drs. J. M. Allen, H. H. Mudd, L. I. Mathews, B. M. Milam and Lester Hall.

Dr. Catlett, as sub-committee on Psychological Medicine, then read an extended paper on "The Asylum Treatment of the Insane."

Dr. B. M. Griffith, of Kansas City, then presented a patient on whom he had successfully operated for the relief of deformity caused by morbus coxarius. He had made a subcutaneous osteotomy between the head of the femur and the trochanter major and tenotomy of the contracted tendons and then straightening the limb, which had previously been flexed at knee and hip, had placed it

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in a plaster dressing. The boy was now able to go about the room with a cane alone, though a crutch was necessary when going any considerable distance.

President Middlekamp's address was the special order for the hour which had now arrived. He urged further advancement in medical education, dwelt upon the responsibility resting on the profession to encourage only duly prepared students to enter its ranks, commended three-term schools and favored a board of medical examiners with whom should rest the licensing power to practise medicine in this state. He suggested the establishment by the Association of a State Medical Library, and the appointment of several standing committees.

The recommendations of the president were referred to a special committee.

Dr. Hanna then read a report on Diseases of Children, giving some thoroughly practical suggestions regarding the treatment of the little folks, advising little medicine, close watching and careful attention to diet.

Dr. B. F. Wilson's paper on Typhoid Fever was next on programme. (We shall give this to our readers in full.)

Dr. Allen, of Liberty, was opposed to alcohol and opium except in certain cases in this fever. Strongly urged the early and continued use of digitalis to sustain the heart's action. He favors cold applications to anterior surface of trunk, a partial cold pack.

Dr. Dewey, of Keytesville, gives no quinine—relies on careful dieting.

Dr. Ricord had tried the treatment with large doses (antipyretic) of quinine and was convinced that in those cases the course of the disease had been prolonged by it. He now relies on milk diet.

Dr. Fitzgerald had tried the so-called German, antipyretic, quinine treatment. He believed in the "cooling bath" putting the patient in water at 100° F. and allowing this to cool down for ten to twenty minutes. He gives milk, peptonizing it if necessary.

Dr. Stringfellow favors salicylic acid in antipyretic doses.

Wednesday afternoon, Dr. B. F. Hart, of Brownsville, read an ably prepared report of the Committee on Collective Investigation, discussing pneumonia in this state. A long and animated discussion followed which was finally terminated by a motion to proceed with the next order of business.

Dr. Nelson here introduced a resolution requesting the Com-

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mittee on State Medicine to prepare bills for the establishment of an institution for the education of feeble-minded or idiot children in this state and also for the establishment of a central institution for the reception and care of the chronic insane, thereby relieving the over-crowded condition of the present institutions and allowing more systematic classification and more efficient treatment of the more recent cases.

Dr. A. J. Steele, of St. Louis, sub-committee on Orthopedic Surgery, read a report on the Treatment of Club-Foot, and exhibited apparatus which he had devised for the purpose.

Dr. R. M. Funkhouser, of St. Louis, read a paper on "Determination of Sex," recording a large number of experiments on dogs, rabbits, and fowl by which he claims to have demonstrated that sperm from the right testicle begets male offspring, that from the left testicle, female offspring.

The discussion which followed showed that some of those present certainly believed that their own personal observation contradicted Dr. Funkhouser's experiments.

At the evening session, Dr. Walker, of Mexico, read a report on the Progress of Surgery, in which he very judiciously summed up the literature of that department for the year.

Dr. Brooks, of Carthage, read a paper on "Injuries of the Great Joints" which was discussed by several, Dr. Prewitt, of St. Louis, calling attention to points of special importance in the paper and adding observations from his own experience.

Under suspension of the rules the Association then went into an election of president, Drs. Catlett, of St. Joseph, Jackson, of Kansas City, and Prewitt, of St. Louis, were the most prominent candidates and the ballot had to be taken five times before a majority of the votes was cast for either one candidate. The final result was the election of Dr. Catlett, of St. Joseph.

A motion made by Dr. A. J. Steele just before adjournment of the afternoon session was called up, and it was decided to hold the next session of the Association in St. Louis at 10 A. M., of Monday, immediately preceding the day of meeting of the American Medical Association.

The Association then adjourned to the Pacific House, to enjoy a banquet provided by the local profession and other prominent citizens, and at which the goveruor, mayor and other dignitaries and a number of ladies were present. After doing ample justice

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to the creature-comforts provided, a number of toasts and responses were offered.

Ex-Mayor Posegate made the happiest hit of the evening in responding for "The Press," making reference to the cider-press, the hay-press, the cotton-press, the press-of-woman's lips, the press-of-baby's lips and last the newspaper press.

Thursday morning there was quite an animated discussion with regard to the constitutionality of certain amendments that were adopted last year. Finally this was referred to a committee for investigation.

The Committee on Nomimations then reported the following nominations for the various offices: Vice-Presidents, C. A. Todd, St. Louis; J. W. Brent, Tipton; J. W. Jackson, Kansas City; D. H. Shields, Hannibal; G. M. Dewey, Keytesville. Recording Secretaries, J. H. Thompson, Kansas City; J. C. Mulhall, St. Louis. Corresponding Secretary, R. F. Brooks, Carthage; Treasurer, C. A. Thompson, Jefferson City.

The report was adopted and the officers were declared elected.

Dr. Lutz, of St. Louis, offered the following resolution:

"That it is the opinion of the Missouri State Medical Society that all local medical associations should demand a more strict observance of the code of ethics of the American Medical Association."

This was adopted after being amended so as to include "district societies."

One month was granted to the president in which to appoint his committees.

The Committee on Nominations was instructed to print the constitution and by-laws of the Association in the volume of Transactions.

Dr. Shields, of Hannibal, chairman of the Committee on State Medicine, stated that last winter there existed a bitter opposition to the personnel of the Board of Health as constituted under Governor Crittenden's appointments, and no less than five bills looking to the repeal of the law creating the Board of Health were introduced, but failed of passage. The committee of which he was a member prepared and introduced a bill making an appropriation of $10,000 for the use of the Board of Health during the two following years. This appropriation was defeated and now there is a State Board of Health without any funds at its disposal, and the terms of office of four of its members expiring July 1, next.

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He condemned the profession of the state for the lack of interest which had been manifested, and depicted in glowing terms the condition of our state without an adequate protection and regulation when surrounded by states in each of which efficient laws have been enacted and are being enforced.

In closing his report he offered the following resolution:

WHEREAS, The Thirty-Third General Assembly in its wisdom, based on a prejudice against individual members of the State Board of Health failed to make an appropriation for the maintenance of said Board, thus jeopardizing the utility of our practice and health laws; therefore be it

Resolved, That this Society respectfully request the governor to keep the Board intact by filling all the vacancies on said Board as they may occur.

The resolution was adopted and a vote of thanks to Dr. Shields for his work was passed.

Dr. Heddens' report of a Case of Ovariotomy was read by title; also Dr. Chesney's report on Progress in Gynecology, both these gentlemen being residents of St. Joseph.

Dr. F. A. Simmons, of St. Joseph, then reported "Three Cases of Addison's Disease."

A special committee then escorted the President-elect, Dr. G. C.

speech presented him with the gavel as the emblem of office, and with thanks to the Society for the honor conferred upon him in placing him in the chair during the past year, resigned the position to his successor, who on his part made a fitting rejoinder.

Customary votes of thanks were passed; hospitable invitations tendered and accepted and at 12:30 the Association adjourned.

PROF. NUSSBAUM. celebrated, January 6, his twenty-fifth anniversary as University Professor and Chief Physician of the City Hospital in Munich. The burgomaster and representatives of the civil and military physicians delivered congratulatory addresses.

DR. FREDERICK THEODORE v. FRERICHS the famous medical professor and author died last month. He was 66 years of age, had held many prominent positions, and was an author best known in this country by his work on Diseases of the Liver, one of his many valuable treatises.

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ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 23, 1885, Concluded.

FRACTURE OF SKULL—TREPHINING.

Dr. Prewitt also reported the case of a young man who had been thrown from a wagon and fell upon a stone. He had been taken to some dispensary and the wound had been dressed simply as one of the scalp. On coming to himself the young man had complained of headache, and on removing the dressing and examining the wound the doctor had found a distinctly depressed fracture to the left of the sagittal suture, the depression amounting to about a half inch. On explaining to him the condition and its danger, the young man readily consented to submit to the trephining. Dr. Prewitt performed this operation and elevated the depressed piece of bone. He then gave ten grains of calomel, which was repeated twice, and then croton oil and a full dose of C. C. pills were administered before the bowels could be stimulated to action. There was dilatation of the left pupil, and impaired motor power (never complete paralysis) of the right arm and leg. He was at no time delirious, but there was a slight tendency to stupor. An ice cap was kept upon his head, and finally free purging was effected. He was taken to the City Hospital and remained there for three weeks and the doctor understood that he had now been out for three or four days and was still complaining of some headache. He regarded him as being still in a somewhat precarious condition.

NECROSIS OF BONES OF NOSE—GLANDERS (?)

A patient had come to him from a town in Illinois, whose condition was decidedly peculiar, and he was somewhat at a loss for a diagnosis.

The patient was suffering from some trouble affecting the nose. This organ was large, swollen, the tissues apparently being infiltrated, and having the dusky red color so common in erysipelas. For several days he treated him for erysipelas. There was a very offensive discharge from the nose, the thickened tissues inside became sloughy, and there appeared to be denuded bone within the nose. The nose continued large, red and thickened, but the swelling did not seem to be inflammatory in character. Just over the side of the nose where the cartilage and bone are joined a blister

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appeared at first. This turned dark and a slough formed about as large as a dime. This the doctor cut out when he found the whole cavity of the nose apparently filled with sloughy material. The nasal process of the superior maxilla was denuded, but still remained firm. The sloughy process seemed to be extending and threatened the destruction of the whole nose. Dr. Prewitt cut out as much as possible with the thermo-cautery, hoping thus to change the morbid process. He was successful in arresting the phagedena, but the ulcerative process still continued. He had taken a portion of this thickened tissue to Dr. F. A. Glasgow, who had found under the microscope a fine fibrous structure with numerous small cells, and the blood vessels filled with micrococci, in some places seeming to be actually plugged up with them.

Dr. Glasgow remarked that this plugging of vessels might possibly explain the gangrenous process. It seemed to him that the appearance strongly resembled what he had seen in syphilitic neoplasms though he recognized the fact that there are no characteristically specific forms that can be observed by the microscope as being essentially syphilitic.

Dr. Prewitt said that he was a good deal at a loss for a diagnosis. In some respects the tissue resembled that of epithelioma, in others it seemed like granulation tissue. It evidently antedated the development of the erysipelatous symptoms. There was no history of syphilis, and the patient denied the possibility of any such origin of the disease. The thermo-cautery having been applied twice, the patient declined to have it used the third time, and had left the city.

In reply to a question from Dr. Bryson as to the part of the growth which Dr. Glasgow had examined, Dr. Prewitt answered that the piece was taken from the margin of the infiltrated tissue, not from the centre of the diseased mass.

Dr. Bryson then asked what occupation the man had followed, whether there were any possibility that he had been handling diseased meat or hides of diseased cattle.

Dr. Prewitt thought he was a farmer, and further thought that any infection of the sort suggested must necessarily run a much less protracted course.

Dr. Bryson thought the latter point well taken, but did not feel at all sure that the disease might not be of syphilitic origin. Unless the patient had been submitted to efficient antisyphilitic constitu-

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tional treatment, the fact that the patient acknowledged no history of syphilis would count for very little. It was not very uncommon to meet cases where the patient refused to admit the possibility of such infection and in which, nevertheless, the rapid disappearance of suspicious symptoms under the administration of potassium iodide demonstrated the correctness of the suspicions. He had seen cases in which there were hardly any secondary lesions, but in which there were characteristic tertiary processes, and the present case might be such. A history of syphilis is important if it can be had, but its absence by no means proves that syphilis is absent.

PECULIAR CASES OF SYPHILIS.

Several peculiar cases had come under his observation. In one a patient had contracted a suspicious sore late in January, and, though under observation all the time, there had been absolutely no further development until the following October. There had been no treatment during this time which could be regarded as the cause of the retarding of the development of the syphilitic manifestations.

In another case a young woman seventeen years old had come to consult him with reference to a peculiar sore upon one of her nipples. It proved to be a bloody excoriation with an indurated base. As she had been sent to Dr. Bryson by a cousin whom he was treating for syphilis, and who had mucous patches of the lips and mouth, he had little difficulty in determining both the character and cause of the lesion. The accuracy of his conclusion was demonstrated by the appearance soon after of a syphilitic roseola. He presumed that the young lady was to this day ignorant of the nature of her disease.

He had another patient, a young lady who had a chancre on the inside of her lip, which she had undoubtedly contracted from her brother.

In neither of these cases would there be any history of syphilis to be obtained from these ladies in after years, inasmuch as they were ignorant of the character of their trouble. Possibly Dr. Prewitt's case might have the disease without being aware of it.

Dr. Prewitt had considered the question. He had had cases which gave no history of syphilis, but which had bony and other tertiary symptoms which yielded so promptly to the action of potassium iodide that he had been assured of their true character. In most cases, however, careful investigation revealed chains of

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enlarged glands or other evidence of syphilitic disease. In this case there were no such evidences; and, morever, he had administered the potassium iodide in efficient doses without any apparent effect.

Dr. N. B. Carson thought there were many syphilitic patients who were not aware of the fact. He recalled the case of a little girl thirteen years of age who was treated at the Sisters' Hospital many years ago by Dr. Pope. She had a chancre of the lower lip, but was never informed as to the true nature of the affection. Of course in that case there would be no history of syphilis, if tertiary symptoms were manifested in later years.

Dr. A. B. Shaw inquired whether Dr. Prewitt's patient had come from one of those towns in Illinois in which farcy or glanders have prevailed recently. He then read an extract from Niemeyer's Practice of Medicine describing the symptoms of that disease which in many respects bore a strong resemblance to the symptoms manifested by Dr. Prewitt's patient.

Dr. Prewitt said that the thought had occurred to him that the case might be one of malignant pustule or something analogous to cancrum oris in childhood, but both of these diseases run their course in a few days and are not prolonged for months as this had been. If he thought it could be glanders he should perhaps feel somewhat solicitous lest he himself might have become affected with it. He had never seen a case of this disease, but this did not meet his ideas of what this disease effected.

Dr. Tukolske said that some years ago he was consulted by an old gentleman over 60 years of age whose air of child-like and bland innocence and thorough respectability was calculated to disarm every possibility of suspicion. He had had for several weeks a sore of a peculiar appearance on his lower lip. It was about as large as a silver dime, uneven, cracked, with ragged edges. There was no appearance of inflammation and very little secretion; there were no glandular swellings. In spite of his appearance the doctor had asked as to possible exposure to syphilis. This was indignantly repudiated. He was a married man and the father of a family, and had never been astray at all. He stated, however, that ten years before Dr. Gross had excised an epithelioma from the same point. After due consideration the doctor determined to excise this sore and did so, removing a "V" shaped portion of the lip and bringing together the margins of the wound

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so made by means of hare-lip pins. Three or four days later on examining the wound he found that there was absolutely no union and the pins were loose, and there was a grayish deposit upon the surface of the wound. Seeing at once that he had been misled, he tightened the pins, applied a fresh dressing and commenced the administration of mercury, internally the proto-iodide, hypodermically the bichloride, and also used mercurial fumigations. In spite of this, however, the patient developed a characteristic roseola in a few days, but the wound granulated satisfactorily with very little loss of substance.

Dr. Bryson thought the case an interesting one of excision of a chancre. For his own part he did not believe that excision of a true hard chancre was of any avail to prevent constitutional effects. He thought if the whole penis should be amputated twenty-four hours after a syphilitic inoculation the patient would be still syphilitic. He thought it bad policy to give constitutional treatment before the development of general symptoms, as thereby the possibility of a certain diagnosis is indefinitely postponed.

Dr. Carson thought that cases occurred in which true syphilis was contracted in which there was no induration of the sore.

Dr. Robinson had been consulted with reference to a sore on the lower lip of a young lady. She had been treated for some time by the family physician, who had stated that it was the result of indigestion and had treated her with pepsin and tonics. Dr. R. was satisfied that the young lady was suffering from a labial chancre. He questioned the mother privately and found that the daughter was engaged to be married. The mother further admitted that the young man appeared to have sore lips and a sore nose. The doctor then told her that the sore on her daughter's lip was caused by kissing some one with a sore mouth. She was placed on mercurial treatment and in two or three weeks the sore had entirely disappeared. Afterwards she had glandular enlargements and an acute syphilitic eruption. Some months afterwards she married, but not the young man from whom she contracted this disease. Some three weeks ago the doctor had been called to treat this lady's infant, who had a syphilitic eruption. Under mercurial treatment this was disappearing.

FOREIGN BODY IN ORBIT..

Dr. D. V. Dean reported a case which had been discussed a good deal in the newspapers. About the last of February a man had

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been received into the hospital suffering from an injury caused by the bursting of a bombshell. Supposing it to be empty, he had attempted for some purpose to fill it with molten lead. The natural result followed. On admission to the hospital the man's face was blackened from powder; the left cheek was swollen, the left upper lid was edematous; the left lower lid and the left eyeball were wanting as well as the malar bone and the floor of the orbit, and the finger could be passed into the antrum. A finger could be passed into the mouth far enough to determine that the palate was intact. There were no symptoms of any cerebral disturbance. The upper border of the orbit seemed to be natural. Cocaine was used in the right eye which apparently was not seriously injured. The wound was cleansed and dressed with iodoform and lint. The patient's wife was not willing to have him remain in the hospital, as they had some means and preferred to take care of him at home. It was eleven days, however, before it seemed prudent to remove him. On the morning of the day when the man was to be taken home, Dr. Dean when dressing the wound removed three or four little spiculæ of bone which seemed to be detached, but refrained from moving a somewhat larger piece, inasmuch as slight hemorrhage was caused by removing the smaller pieces, and he preferred to leave that for a day or two longer when the surgeon under whose care the case was to be could readily remove it. The patient was taken home and in the afternoon it was stated that he became crazy and unmanageable. The surgeon who had been called to the case, Dr. Bernays, was hastily summoned. On introducing a finger into the wound he states that he detected a foreign body with his finger and, grasping it with forceps and exerting a considerable amount of strength, he succeeded in extracting a piece of the bomb-shell about 6 mm. (¼ inch) thick and weighing 101 grams (over 3 oz.) He asserted that this piece of iron had crowded the eye upwards and backwards and raised the roof of the orbit, itself taking the position of the roof and substituting that portion of bone.

Dr. Tuholske asked what had covered the under surface of this piece of iron when it was *in situ*. It seemed to him a difficult point to explain. Another peculiarity of the case was the absence of serious cerebral symptoms when the anterior lobe of the cerbrum was so much compressed as it must have been if this piece of iron, one-fourth inch thick, had so crowded up the orbit as to take its place, and that too with the eyeball intervening.

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MEDIASTINAL TUMOR.

Dr. Robinson said that some months ago he was consulted concerning a gentleman 60 years of age who suffered from severe pain in the chest, of a paroxysmal character, sometimes extending down the left arm. He sometimes had severe suffocative attacks. Physical examination revealed nothing to explain the symptoms, and he thought it was probably a case of angina pectoris, and advised anodynes, morphia and chloral. Two or three weeks afterwards, in addition to the pain there was difficulty in swallowing. Still there was no evidence of disease. Stricture of the esophagus was considered, but the fact that he could swallow solids proved that this condition was not present. In spite of the suffering he did not lose strength or flesh but the pain and dysphagia increased. Three months ago he had examined him again. There was no evidence of cancer, no cachexia, no black vomit or passage of blood per rectum. Neither were there symptoms of aneurism. Aphonia was present. Making a diagnosis by exclusion Dr. Robinson had argued that it must be some sort of mediastinal tumor. Three weeks before his death there was increased urgency of the symptoms, and in addition to those already mentioned there was a gnawing or a boring pain below the sternum. Still he could swallow fluids and there was no regurgitation and no bruit. However a tumor did present above the upper end of the sternum, thus evidencing the correctness of the diagnosis already formed. He died of gradual exhaustion from suffering and lack of food. A *post-mortem* examination disclosed a tumor lying behind the upper third of the sternum and involving a portion of the thyroid gland. It was as large as the fist and included the esophagus, trachea and adjacent structures.

PUERPERAL THROMBOSIS.

Dr. Robinson further recited the account of a lady who had been confined under the care of a midwife nine days before he was called in. She had an easy and natural labor. Not feeling very well on the ninth day she had called in a doctor. She had done very well so far, had been up and had good strength. Finding her constipated he had given a mild laxative. In the afternoon when sitting on the stool she had fainted. Dr. R. was called in consultation. He found her cyanosed, respiration 50, pulse 160; temperature 100°. The arteries seemed almost empty; surface moist and warm. He diagnosticated the case as one of thrombosis of the pulmonary

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artery, and recommended stimulating the heart's action with ammonia and alcohol. She died in about twelve hours. He thought the case an instructive one on account of the length of time that had elapsed between the labor and the occurrence of this accident. It was a caution not to allow patients to arise too soon.

Stated Meeting, April 7, 1885.

MODIFIED MEDIAN LITHOTMOY.

Dr. Ford. read a paper on Cases of Modified Median Lithotomy. (vid. p. 503) The doctor showed the catheter which he generally passed into the bladder immediately after the operation, to be retained a short time, twelve hours or so. The various operations for stone, in his opinion, should be selected and modified in accordance not only with the general condition of the patient but the local condition of the bladder and pelvic structures. The main point is to remove the stone with the least danger to the patient. The principal dangers are hemorrhage and secondary inflammation of the bladder extending upwards into the kidneys. In the cases that were detailed incision of the perineum was compulsory. In the first case there was a stone in the perineum which had to be got rid of. It was uncertain whether there was one in the bladder or not, but it was obvious that through the incision to be made in the perineum the bladder could be investigated, and through that incision any vesical calculus could be removed. It was conjectured from the symptoms that there was such a stone, and this surmise proved to be correct. He made an incision into the prostate on the left side, performing a modified median operation. In the true median operation there is no incision in the prostate. We have also as forms of the median operation the bilateral section, and the medio-bilateral operation. We have also Dolbeau's perineal lithotrity, which involves a median incision. In the first case reported it was necessary to extract the stone by the median operation, otherwise two operations would have been required. It was done before the invention of Bigelow's rapid process. In the second case a large calculus (which the doctor exhibited) was extracted by the perineum. The bladder was so irritable that the patient passed water every fifteen minutes. If the stone could have been dislodged and passed back into the bladder, it would have been dangerous to do so, because

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the crushing process would have been a long one. The stone being angular, and the bladder being intensely inflamed, it would have been a dangerous operation and the patient's condition was extremely bad, so that probably he would not have survived. The calculus moreover was fixed in the prostate It probably had been a small stone when it lodged in the prostate, growing larger until it filled and gradually dilated the prostatic urethra, projecting towards the membranous urethra so that when a sound was passed it impinged directly upon it. The stone being so large its extraction was necessarily tedious and difficult, requiring incisions on both sides and also downwards. Although in some of those cases incontinence occurs, this risk must be sometimes assumed, as was done in this case with very good result eventually. Dr. Ford thinks that in many of these cases a modified median operation is as safe an operation as Bigelow's, and gives even more satisfactory results, because we can absolutely determine that the bladder is freed from all fragments. The smallest particle of detritus can be felt directly with the finger and washed out.

The median operation is indicated in a variety of conditions, especially where stones are developed either in the prostatic urethra or in the membranous urethra. Where the patient is in good condition and the stone of moderate size and even in the bladder there is no objection whatever to this operation. In every cutting operation for the extraction of stone, a chief danger is hemorrhage, and this is much less in the median than in the lateral operation. There is moreover less danger of laceration and contusion of the tissues, because such operations are usually for vesical stones, of moderate size. There is also little danger of our falling upon abnormally distributed arteries, and as we should not make our sections very extensive and need not use much force if the stone is of the size properly adapted to the median method, other risks are avoided. The operations detailed are not strictly median lithotomies, but such lithotomies modified by division of the resisting structures according to circumstances. Where resistance is perceived a probe-pointed bistoury is introduced and a slight incision made and the extraction is resumed. This is done without removing the forceps from the stone and involves the principles of gradual dilatation and the moderate use of the knife in various directions, even downwards. Then there is no actual danger in extending the incision in the urethra downwards, if we place the finger in the

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rectum. A skilled finger can detect the pressure of the edge of the knife long before the rectum itself is in any danger, but this should be only done where it is absolutely necessary. It is necessary in some cases to introduce a knife and divide the prostate in order to avoid too much laceration of that organ. The point that should be kept prominently before the mind of the operator during the entire period of operation is that there is much less danger of stretching the parts after a slight incision than in making a preliminary wide incision. Well-known modifications of the median operation are termed bilateral and medio-bilateral, where a single or double lithotome caché is used. The two bladed knife is apt to yield too much on one side and in that way the pudic artery may be cut and is often endangered, and likewise the arteries of the bulb. So far as section of the bulb itself is concerned in the median operation, Dr. Ford said that he had never found any difficulty about this, because he keeps in the middle line. He also aims to cut low down and makes the external incision as much cutaneous as possible, but he cuts in the median line as exactly as he can. Another way that has been advised is to sweep around the bulb, but we run more risk of cutting the artery of the bulb in that way than when the bulb is divided strictly in the median plane; this has been his personal experience. He thinks the danger of incision of the bulb is far less than might be expected; the hemorrhage in these cases was very moderate. In some cases of perineal section there is very little hemorrhage, indeed not more than a few ounces of blood are lost. The raphé which is visible upon the skin penetrates the deeper structures in the median plane, and if we cut strictly in this plane the hemorrhage is quite moderate.Dr. Ford sometimes uses in these operations Weiss's three bladed dilator as originally employed by Mr. Allarton himself. The finger can be introduced more easily after this instrument has been carefully used. We first pass a ball pointed grooved director into the bladder, taking care that it comes in contact with the stone, and upon this the closed dilator is passed and screwed up so that the membranous and prostatic urethra is very carefully and moderately dilated just enough to admit the finger, which is then passed readily. After this dilatation, a small prostatic incision is made on one side, and other irregular incisions at constricting points during the extraction. This Dr. Ford thinks is the safest and most practicable way of operating, when we perform a median operation,

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although such an operation cannot rank strictly as a medio-lateral or a medio-bilateral operation. After the operation he ties in the catheter which he had already shown, to drain the urine from the bladder. For the first twelve hours the bladder is thus kept empty and the patient is not disturbed. After twelve hours the catheter is usually removed, as the parts by that time have become glazed, and there is no great danger of septic absorption. If the cystitis should become aggravated, the bladder is to be washed out with a solution of boracic acid and borax, with glycerine. After a short time the same instrument is passed by the meatus and the deep urethra systematically washed out. The wound in the perineum usually closes in two or three weeks, sometimes in a few days, or even in twelve hours.

Dr. Mudd asked if the prostate was ulcerated much in the case where the calculus was found in the prostatic urethra, and also what the capacity of his bladder was.

Dr. Ford said that the walls of the cavity in which it was contained were very thick, almost cartilaginous, it had been there so long. He didn't know that there was any ulceration. The stone had been about three years in forming. The bladder probably would hold four to six ounces without any sensation of strain upon it.

Dr. Homan inquired if there was not a great deal of effort when passing urine, to pass it around the stone.

Dr. Ford answered that the urine had maintained a passage for itself.

Dr. Lemen asked if in cases where the perineal wound closes in twenty-four hours or so he would re-open it.

Dr. Ford answered in the negative. He would still wash out the urethra and allow the water to regurgitate by the meatus at the side of the syringe. That can be easily done and is a matter of comfort, cleanliness and safety. He generally uses a solution of boracic acid and glycerine.

Dr. Mudd inquired whether he made any special effort to close the external wound where it does not close in a reasonable time.

Dr. Ford said he generally allowed eight or nine days to elapse and would then wire the wound if union had not taken place.

Dr. Mudd said that as he came in late he had not the pleasure of hearing Dr. Ford's paper. The form of the stone, its shape and appearance would hardly be expected in a calculus formed in

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the prostratic portion of the urethra, as that is normally somewhat spindle-shaped with a contraction at either end. The contraction of the anterior extremity is a little more marked than that at the posterior, the anterior being completely surrounded by the structure of the prostate gland. The gland structure is pretty firm, and when irritated by deposit there it becomes firmer and maintains its outline. Now the shape of the stone is very nearly oval, being a very little flattened upon two sides, and it does not present anything of the outline or shape that we might expect of a prostatic calculus. All the prostatic calculi that he had seen had partaken more or less of the same peculiar shape, of the channel of the prostatic urethra. The neck of the bladder, the vesical neck, which is the posterior part of the prostate, sometimes yields and expands under the influence and pressure of the calculus, especially when the bladder is contracted and thickened and the stone is pressed continually into the neck of the prostate or it weakens and the stone advances into the prostate. He had never made the median operation nor had he seen it made except in one instance, a case in which Dr. Eves operated, and in which there was a piece of catheter inclosed as a nucleus for a stone. The operation was quickly done. The patient made a moderately good recovery and regained the tone and control of the bladder. He had never seen any necessity for an effort to close the wound in the lateral operation or in the supra-pubic operation, the wound closing as a rule readily and kindly without operative interference. The case reported by Dr. Ford he thought to be of especial interest; such granulation surfaces may be brought together and wired so as to prevent the escape of urine. The lateral operation is so successful, gives such free entrance to the bladder and leaves so little ultimate bad result that it had seemed to him all that is necessary.

Dr. Ford thought Dr. Mudd's point very well put. He was unable to say that this stone originated in the prostatic portion of the urethra, but thought when it was of moderate size it had become impacted in the prostatic urethra and grew there and so produced the well rounded stone presented to the Society. Probably it was originally a small stone and was thrust into the urethra and there remained and enlarged. It seemed to be impossible to push it back into the bladder although he used considerable effort.

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LIFE INSURANCE PROBLEMS.

Dr. Nelson said that Dr. Ford's remarks had called to his mind a question that was asked him by an officer of a life insurance company not long since. The case which he stated was this: A candidate for insurance about the age of 50 years stated in his application that he believed himself to be in good health and knew of no fact in his physical condition which would interfere with his eligibility for insurance. His application was acted upon favorably. Within a period of three months he was operated upon by a surgeon in this city for stone in the bladder, and about fifteen months after that he died from the result of a second operation of the same sort. The facts having been reported to the home office the medical director sent down to make further investigation in regard to the case, and one of the officers of the company had asked the question, whether it was possible for a man who was of an ordinary degree of intelligence to honestly make such representation as this man did in his application. He would like to know if it is possible for a stone in the bladder to be developed to such an extent as to make necessary a surgical operation within three months after a time when a man believed himself to be in sound health and of good physical condition?

Dr. Mudd said that in answer to Dr. Nelson's question he might relate a case that had been under observation for the last thirteen years, a phlegmatic German who received a compound comminuted fracture of both legs thirteen years ago last November and was confined to his bed for something over a year, making a good recovery. During the time of his confinement he suffered some with his kidneys, he also suffered from colic, and after he was up he had some trouble of the bladder and passed some small stones. Five years afterwards he suffered from an attack the symptoms of which indicated that a stone was present. A nucleus had probably been there during all that time. After the lapse of three years, that was eight years after the nucleus had formed he sought counsel for it and he was still in good health. The doctor sounded him and found a stone about the size of a hickory-nut. He told him that there was a stone there, and wanted to operate on him, but he refused. He commenced taking oak barks and rosemary tea and other decoctions. He retired from business to take care of himself in his own way, taking these teas, and he became so well that he again entered into business and went to work, considering himself

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well. He stated that his stone was gone. His urine had certainly improved, but the stone was there all the time. Last October Dr. Mudd operated by litholapaxy, and removed a stone which weighed 1320 grains, and he made a good recovery. He recovered the use of his bladder, voiding his urine and restraining the flow after the lapse of eight or ten days, but he considered himself, and to all practical purposes was well during the three years, part of the time he was carrying the stone. There is no question but a person may have an acute inflammatory condition, or at least suffer acutely from pressure of the stone and recover from that and carry the stone comfortably for a good many months. And it is an undoubted fact that persons suffer more from stone in certain seasons of the year than in others; and a man of ordinary intelligence, but not of perhaps ordinary sensibilities, may have stone and consider himself well.

Dr. Ford stated that in the year 1877 a gentleman about 70 years of age, came to him with enlarged prostate. After the usual treatment and teaching him to use the catheter, in the course of six weeks he dismissed the case, cautioning him of the danger of the formation of stone,and especially that it was necessary to be careful that the catheter was clean before passing it into the bladder. He told him that if any foreign substance was introduced into the bladder it would form the nucleus for a stone. Eighteen months after that he called, stating that he had been passing stones and that he had suffered a good deal with them sometimes. On examining him Dr. Ford found a stone in the bladder which a short time afterwards he crushed by Bigelow's operation and extracted completely. On examining the stone he found that it was formed around a nucleus which consisted of a pubic hair. It was oblong in shape, about the size of an almond with the shell on, formed around a nucleus of hair which had been passed in with the catheter. Nine months after that the doctor was obliged to operate again by litholapaxy and washed out another stone of the same sort. He then recovered his health and attended to his business as before. There was a great irritability of the bladder for several months, and nine or ten months after that another stone formed and was removed. He was then verging on seventy-three years of age. There was a great deal of irritability afterwards which increased as his strength failed, and in the course of a few weeks he died. The period of formation was about nine months in each

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case, and the stone in that time grew to the size of an almond.

Dr. Leete related an experience which would go to show that people do rather extreme things when bent upon obtaining life insurance, and showing also that physicians may not be vastly different from other men. Some years ago he was asked by some agents of a life insurance company to go up on Clark avenue and carefully examine an applicant who had applied for a policy of $10,000 upon his life. It was a requirement of the company that when more than $5,000 was asked for two physicians should examine and report upon the applicant. He was shown before starting an exceptionally fine report from another physician. The final question to be answered by thephysician was, "do you regard the applicant a good risk," and the answer was, emphatically, yes." He went to the house, made known his business, was shown to his room and to his surprise found him in bed. He looked like a well man. He made some plausible excuse for being in bed, and then the doctor proceeded with his examination. In due time he got to the investigation of the thoracic cavity; the respiration was somewhat feebler than he would have expected in a man of his apparently robust health and he thought he detected an expression of slight anxiety about it. Presently the doctor asked him to stand up and he demurred at that, and the doctor discovered a crutch peeping out that evidently the man did not intend to expose. Presently he found that the man was paralyzed in his lower extremities. At least, he was not able to walk; he used crutches. He had been in that condition for several months, the result, as he stated, of going into a cold water bath when he was much heated.

ADULTERATION OF QUININE with sugar of milk has been found in a number of instances in New York City. Its presence would not be detected by any of the tests usually employed for impurities in quinine but it may be demonstrated when presented by boiling the quinine sample with three times its weight of the 91 per cent. alcohol of the pharmacopeia. In this the quinine itself is readily soluble while scarcely any of the sugar is dissolved. The residue when washed out with more alcohol will be fonnd to be sweet and to respond to all the tests for sugar of milk.—*Boston Med. and Surg. Jour.* May 21, 1885.

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FOREIGN CORRESPONDENCE.

LONDON LETTER.

UNIVERSITY REFORM.—MEDICAL DEGREES.—MR. EDWARD DAVY.—CHARLEY KINGSTON'S AUNT.—COMPULSORY VACCINATION.

LONDON, May, 1885.

EDITORS COURIER.—The subject which still chiefly engages the medical profession in London is the reformation of the London University so as to insure the obtaining of medical degrees on easier terms than has hitherto been the case. Sir Wm. Jenner in his address on re-election as President of the Royal College of Physicians expressed his doubts as to the Senate of the University being induced to alter its regulations so as to facilitate medical graduation; and he advocated that the two colleges of physicians and surgeons in their joint capacity should obtain from the legislature the privilege to grant degrees in medicine. *The Lancet*, in a leading article, comments most severely on this suggestion. It says: "It is not in the nature of things that professional corporations should grant degrees; and it would be a serious degradation of degrees and of their value, if every one passing the lowest qualifying examinations of the corporations were to become entitled to the highest and most coveted medical title. We cannot believe that such a step will ultimately have the approval of the College of Physicians, which has always held high the distinction of graduation, and recognized that the conferring of degress and of the titles attaching to them was the work of universities. Is it to be believed that a degree from two London corporations would be considered equivalent in public value to those of ancient and well-ordered universities where all the faculties exist? The whole system of graduation would be discredited. Men would cease to strive for that which had ceased to be an honor."

A deputation from the Metropolitan Counties Branch of the

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British Medical Association lately waited upon the Senate of the University of London to press upon its consideration certain proposals for facilitating the acquirement of degrees. The University was represented by Sir James Paget, the Vice-Chancellor. The recommendations made by the deputation to the Senate of the University were three in number, asking it to (*a*) modify its regulations and procedure, so as to adapt them to the requirements of the medical profession in England; (*b*) reconsider and modify the two preliminary examinations; and (*c*) admit upon the Senate, as members of the Senate, a certain proportion of representatives of the metropolitan medical schools. In answer Sir James Paget promised the deputation that its views should be considered, but he also said the University "has to take care that the degree shall indicate an attainment higher than that which commonly exists, not only in the practical subjects, but in the whole of that education which goes to make a well educated gentlemen as well as a practical physician. Then it has to consider how this can be done with as little difficulty, but with as great security, as possible."

It is not generally known that the development of the use of electricity for the telegraph was chiefly owing to the labors of a medical man named Davy, who recently died in Australia at a ripe old age. Mr. Edward Davy was born in Devonshire and studied medicine at St. Bartholomew's Hospital in London, of which institution he was one of the House Surgeons in 1829. He first experimented in electric telegraphy in 1836 and was the discoverer of what is called the "relay system." After emigrating to Australia in 1839, he gave up the practice of his profession and held in succession several important posts under the colonial government. He was at one time assayer at Adelaide to the South Australian Government; and in 1853 he was chosen by the government of Victoria to organize and manage an assay office in Melbourne. At the time of his death he had for many years retired into private life.

A medical novel has recently appeared in London under the title of "Charley Kingston's Aunt." It is written under the "*nom de plume*" of Pen Oliver, but it is said to be from the pen of that distinguished surgeon Sir Henry Thompson. There is one stirring incident in the tale where the hero is given a head and neck to dissect in the anatomical rooms and discovers it to be on the body of his own aunt. The rest of the story is very insipid and taken up chiefly by silly and uninteresting love encounters. The scene is

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laid in one of the best known metropolitan hospitals and medical schools. Some of the characters sketched can be recognized by old students as those of familiar friends. The novel is on that account one of great interest to some members of the profession, and shows an intimate knowledge of the present condition of medical society in London. The author has also dealt more justly with the average medical student in the description of his manners and disposition than has generally fallen to his lot, especially when compared with the writings of Dickens and Thackeray. It is said that the novel is having a very extensive sale.

It may be interesting to the readers of the COURIER to know some of the provisions of the Compulsory Vaccination Acts as enforced in this country, especially as these Acts are at the present time meeting with so much opposition in many of our populous centres. The birth of every child in England has to be registered. To neglect this duty renders a parent liable to a fine. The Registrars of births are usually also what are styled Vaccination Officers under the Vaccination Acts, and they issue an order to the parents of a child to have the child vaccinated within a period of three months from its birth. On the order is also a notice of the name of the medical man who has been appointed Public Vaccinator for the district, and the times and places at which he performs the operation. In the country districts the Public Vaccinator is usually the medical officer for the district, appointed by the guardians of the poor for the treatment of those receiving relief from the rates. Every three months the public vaccinator attends on a certain specified day, often at the village school room of the respective villages, to perform the operation, and all children under three months of age have to be brought to him unless the parents prefer to have the operation performed at their own houses by their own private medical attendant. In this case the parents have to pay for the vaccination themselves,and medical men charge a fee varying from five shillings to a guinea (one dollar and a quarter to five dollars)according to the position and means of their patient. If parents accept the services of the public vaccinator, the state pays for the operation a regulation fee of half-a-crown (sixty-cents), but if the appointed vaccination station is more than a mile from the vaccinator's house the regulation fee is three shillings and sixpence (eighty-four cents). A week after the vaccination the public vaccinator again attends at the appointed vaccination station and all

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children vaccinated on the previous visit have to be brought to him for inspection, and often a second batch of children are vaccinated as the directions of the local government board to their appointed vaccinators include the instruction to vaccinate as often as possible from arm to arm. In large towns where the public vaccinator attends weekly at an appointed station this requisition can be more easily complied with. Many parents have a great objection to having lymph taken from their child's arm for the vaccination of another child, but the refusal to allow lymph to be so taken and used renders the parents liable to a fine of twenty shillings. On the second visit for inspection, if the operation has been successful, the vaccinator certifies the fact on the vaccination order and this is returned to the vaccination officer. No fee is allowed for unsuccessful vaccination. When the vaccination is performed by a private medical man he fills up the form and returns it to the vaccination officer in the same way as does the public functionary. On the vaccination order is also a form which can be filled up by any medical man to the effect that the child is delicate or in a bad state of health, and therefore it is deemed advisable that the operation should be postponed for three months. If at the expiration of the second three months from birth it is still thought desirable to defer vaccination, another form to that effect has to be filled up. Among the lower classes parents are continually changing their places of abode so that they cannot be followed up by the vaccination officers, and thus they evade the compulsory clauses of the Act. Many children in this way escape vaccination altogether. The local government board supplies lymph free of charge to public vaccinators in capillary tubes or on ivory points, and on occasions of severe epidemics will also supply lymph to private practitioners, but at ordinary times private medical men applying to the local government board for lymph are referred to the public vaccinator of the district. The local government board have lately made arrangements for supplying non-humanized lymph; and two stations have been established in London where vaccination is performed direct from the calf. This is to meet the objections of those who fear that syphilis and other diseases may be transmitted by direct vaccination from child to child. The vaccination by calf lymph is followed by more inflamed areolæ and more constitutional disturbance than when humanized lymph is used. Every individual can claim to be re-vaccinated once at the public expense.

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The following instructions have been issued by the local government board for the use of public vaccinators.

1. Except so far as immediate danger of small-pox may require, vaccinate only subjects who are in good health. As regards infants, ascertain that there is not any febrile state, nor any irritation of the bowels, nor any unhealthy state of the skin; especially no chafing or eczema behind the ears, or in the groin, or elsewhere in folds of skin. Do not, except of necessity, vaccinate in cases where there has been recent exposure to the infection of measles or scarlatina, nor where erysipelas is prevailing in or about the place of residence.

2. In all ordinary cases of primary vaccination, if you vaccinate by separate punctures, make such punctures as will produce at least four separate good-sized vesicles, not less than half an inch from one another; or, if you vaccinate otherwise than by separate punctures, take care to produce local effects equal to those just mentioned.

3. Direct care to be taken for keeping the vesicles uninjured during their progress, and for avoiding afterwards the premature removal of the crusts.

4. Enter all cases in your register on the day when you vaccinate them, and with all particulars required in the register up to column 9 inclusive. Enter the results on the day of inspection. Never enter any results which have not been inspected by yourself or your legally-qualified deputy. In cases of primary vaccination, register as "successful" only those cases in which the normal vaccine vesicle has been produced; in cases of re-vaccination register as "successful" only those cases in which either vesicles, normal or modified, or papules surrounded by areolæ, have resulted. When the vaccination of an unsuccessful case is repeated, it should be entered as a fresh case in the register.

5. Endeavor to maintain in your district such a succession of cases as will enable you uniformly to vaccinate with liquid lymph directly from arm to arm; and do not, under ordinary circumstances, adopt any other method of vaccinating. To provide against emergencies always have in reserve some stored lymph; either dry, as on thickly-charged ivory points, constantly well protected from damp; or liquid, according to the method of Dr. Husband, of Edinburgh, in fine, short, uniformly capillary (not bulbed) tubes, hermetically sealed at both extremities. Lymph successfully

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preserved by either of these methods may be used without definite restriction as to time; but with all stored lymph caution is necessary, lest in time it have become inert, or otherwise unfit for use. If, in order to vaccinate with recent liquid lymph, you convey it from case to case otherwise than in hermetically-sealed capillary tubes, do not ever let more than eight hours intervene before it is used.

6. Consider yourself strictly responsible for the quality of whatever lymph you use or furnish for vaccination. Never either use or furnish lymph which has in it any, even the slightest, admixture of blood. In storing lymph be careful to keep separate the charges obtained from different subjects, and to affix to each set of charges the name or the number in your register of the subject from whom the lymph was derived. Keep such note of all supplies of lymph which you use or furnish as will always enable you, in any case of complaint, to identify the origin of the lymph.

7. Never take lymph from cases of re-vaccination. Take lymph only from subjects who are in good health and, as far as you can ascertain, of healthy parentage; preferring children whose families are known to you, and who have elder brothers or sisters of undoubtful healthiness. Always carefully examine the subject as to any exciting skin-disease, and especially as to any signs of hereditary syphilis. Take lymph only from well-characterized, uninjured vesicles. Take it (as may be done in all regular cases on the day week after vaccination) at the stage when the vesicles are fully formed and plump, but when there is no perceptible commencement of areola. Open the vesicles with scrupulous care to avoid drawing blood. Take no lymph which, as it issues from the vesicle, is not perfectly clear and transparent, or is at all thin and watery. From such a vesicle as vaccination by puncture commonly produces, do not under ordinary circumstances, take more lymph than will suffice for the immediate vaccination of five subjects, or for the charging of seven ivory points, or for the filling of three capillary tubes; and from larger or smaller vesicles take only in like proportion to their size. Never squeeze or drain any vesicle. Be careful never to transfer blood from the subject you vaccinate to the subject from whom you take lymph.

8. Scrupulously observe in your inspections every sign which tests the efficiency and purity of your lymph. Note any case wherein the vaccine vesicle is unduly hastened or otherwise ir-

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regular in its development, or wherein any undue local irritation arises; and if similar results ensue in other cases vaccinated with the same lymph, desist at once from employing it. Consider that your lymph ought to be changed, if your cases, at the usual time of inspection in the week day after vaccination, have not, as a rule, their vesicles entirely free from areolæ.

9. Keep in good condition the lancets or other instruments which you use for vaccinating, and do not use them for other surgical operations. When you vaccinate, have water and a napkin at your side, with which invariably to cleanse your instruments after one operation before proceeding to another.

The profession in America, especially those members of it who visited Europe last year to attend the International Medical Congress, will be very sorry to hear of the death of Professor Panum of Copenhagen, which occurred a few days ago. Professor Panum worked diligently at the question of transfusion and showed that it was best, except when passing blood from one individual to another, to defibrinate the blood. He also investigated many other physiological and pathological subjects of the greatest interest. His death is a real loss to the science of medicine. E. V. A.

DOMESTIC CORRESPONDENCE.

NEW MEXICO LETTER.

LAS VEGAS, HOT SPRINGS, NEW MEXICO, May 28, 1885.

EDITOR COURIER:—If excuse for filling some of your columns with a letter is necessary, let it be the influence of exhilarating atmosphere and surrounding beauties of nature which have so delightfully aided in restoring my health and elating my senses. Here in the foot hills of the Rockies, "Nature's grand kaleidoscope discloses to the view" so great a variety of beauty that the eye never wearies of gazing upon the stupendous panorama.

After a sojourn here of three weeks and an investigation to a limited extent, I arrive at the conclusion that as a sanitarium for a great variety of conditions arising from the habits, domiciliary and hygienic, of our Nineteenth century life, this country presents more promise of benefit than any other heretofore sought.

This place is situated six miles from the town of Las Vegas

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(the meadows), 35 degrees, 40 minutes, north latitude, 28 degrees 15 minutes west from Washington, at an altitude of 6,700 feet above sea-level, and about 950 miles by rail from St. Louis, south of the southern boundary of Missouri, being nearly on a line with Asheville, N. C. The property embracing the springs, owned entirely by the railroad company, consists of about 200 acres, some 30 of which form a level plaza near the outlet of a deep cañon through which runs a beautiful stream of water, the Rio Gallinas (Fowl River), fed almost entirely by the melting snows of the mountains and also by the numberless springs which are found along its course; the water is pure and clear, passing entirely through and over rocks, and, excepting immediately after heavy rains, gives no sediment whatever.

The locality is so surrounded by mountains that the high winds which so predominate in the west are scarcely felt, especially at the largest hotel, which is located about half way up the side of the northern elevation.

The daily variation of temperature is scarcely noticeable, the thermometer indicating from 8 A. M. to 4 P M., rarely more than a degree of excursion; during the past three weeks the minimum that I have observed at 6 A. M. was 49°, the maximum at 1 P. M. 70°. During twelve years the United States Signal Service at Santa Fe records the lowest point reached to have been in January, 1883, —13°. The highest was in July 1878, 97°. The mean for January for a period of twelve years was 28.1°; for July, 68°; these observations, according to official custom have been corrected for altitude. The average humidity for the same period was 38°; contrast this with that of our own region, which is about 73°, and we will recognize the fact that even the highest temperature is not sensibly hot, nor the lowest cold. In fact I was told by a guest here, of last winter that, although the river was frozen sufficiently for skating, he saw gentlemen enjoying the exercise in their shirt sleeves. Clothing throughout the year is unvaried unless it be the addition of an overcoat in winter, or a light coat in summer. Blankets at night are needed all the year round. The number of cloudy days for the year according to signal office record for ten years with but a single exception, 1878, varied from 39 to 53, and during the whole of the past exceptionally severe winter there was no day which forbade riding or walking. The snowfall is infrequent and rarely remains on the ground for more than a day.

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The springs are numerous, presenting very much the analyses of Carlsbad; the one from which the hot baths are given has a temperature of 140°, is rather pleasant to the taste, having a decided diuretic and slightly astringent effect—the principal saline constituents being the sodium chloride and sulphate with a trace of lithium.

A form of bath much esteemed by sufferers from rheumatism, gout and certain cutaneous affections, is the mud or peat bath—a huge warm poultice ugly to look at, but under certain conditions beneficial beyond question.

The hygienic arrangements of the property are excellent. The water for hotel use is pumped from the river to a large reservoir at the top of a hill some 300 feat above the level plaza; thus there is an abundant supply for purposes of utility and ornament in the way of fountains, etc. The sewage is conducted by large sewers to a farm one and a half miles below the hotels.

The rainy season is included in the months of July and August when few days pass without rain, which occurs usually in showers of short duration and not frequently repeated through the day.

At the very time when we especially desire a change of climate for those suffering from pulmonary disease, the season here is most delightful; clear, dry, equable and sufficiently warm at the same time that the altitude secures purity of air rich in ozone, so that respiration is accomplished with ease and without irritation, but only to such as are not advanced to suppurative stages; these succumb quickly.

I think that the numerous cases of neurasthenia, especially those now so common among the overworked merchants and professions will find this region the place of all others to restore their waning energies by rest, invigorating air accompanied by the essential novelty and variety of scenery and mode of life. Gout and rheumatism I have seen very rapidly and positively relieved in several marked instances.

I have refrained from expanding upon the seductive fascinations of scenery as obtained in riding and tramping through the cañons and over the mountains, along the brawling streams and under the skies of purest blue, in an atmosphere that presents no obstruction to vision that can reach points at the distance of a hundred miles.

To do this worthily requires the pen of a poet, and is unfitted to the utilitarian service of the COURIER. G. A. MOSES.

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COMMUNICATIONS.

MATERNAL IMPRESSIONS.

BEIRUT, SYRIA, April 19, 1885.

Editor Courier of Medicine:

DEAR SIR.—In the March number of the COURIER OF MEDICINE I notice an article written by Cheever Bevill, on a case of "Acephalus with Spina Bifida" which occurred in his practice, and which I would like to say a few words about, if it is not too late when this reaches you.

We are told that the woman who gave birth to this monster ceased menstruating February 19, and that at the middle of March she had, according to her husband, a fright, but her aunt says it was the middle of April. The doctor after remarking the probable period of her gestation when she had the fright which she thinks caused the monster, asks, "What effect could this have had on the fetus when so young?" What the age of the embryo was at the time of the mother's fright is impossible to say, since a woman may have one or more menstrual flows during the early months of gestation, or, since pregnancy occurring just before the menses may prevent the latter. The probabilities are, however, greatly in favor of her being pregnant not less than three weeks, if at all, at the time of the fright, whenever that occurred. "What effect, then, could this have had upon the fetus when so young."

If maternal impressions are ever transferred to the embryo we must admit that they are at no time transferred by means of nerves, because there are none connecting mother and embryo. Yet the general opinion is, and there is certainly much evidence in favor of it, that they are transferred and may affect the embryo favorably or unfavorably. There is always contact between the mother and embryo, and from the earliest age there is a communication between them by which absorption from one to the other

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takes place. If maternal impressions are transferred it must be by means of this contact, or absorptive communication, however simple or complex it may be. Now, if "thought-transferrence" between adults does occur without the ordinary means of communication, as the "Society for Psychical Research" report from their recent investigations, why may not maternal impressions be transferred from mother to embryo when the conditions and connections between them are so infinitely more complete and favorable for it, we would think, than they could be at any time for "mind transferrence" between adults? We would conclude, too, that if transferrence is possible by virtue of contact or the absorptive communication between mother and embryo, that transferrence may occur at any time during the life of the embryo, because these conditions are at all times present, and life, we are told, begins with the beginning of development. For maternal impressions to affect the embryo they must (1) be transferred to it, it must (2) be receptive to them, and they must (3) make an impression upon it. At what period then, if at all, is the embryo receptive to these impressions so that they may modify its development? Of course while it is developing, and, as a twig is bent easiest while it is young and assuming shape, so we would expect that the embryo would be deformed easiest in its earliest development, and this is supported by the fact that double or triple headed monsters or double bodied ones are known to be caused by splitting of the primitive trace at a very early period in embryonic life, and not by embryos growing together. The embryo is moulded into shape by the very simple law of unequal rapidity of growth of its different parts. One part growing more rapidly than its surrounding parts results in forming an elevation or depression in that part, and in this way all the organs are shaped to conform to the type of their kind, and any interference with this growth in a part modifies the development there. I would not attempt to show that the fright which the mother in this case sustained caused the monster. I do, however, wish to show, contrary to the doctor's views, that the probable age of the embryo (not less than twenty-one days) was sufficient for it to be profoundly affected by maternal impressions, if such is possible in any case.

This monster was defective in brain, and in bony covering of brain and spinal cord. Now almost the first change towards development of the embryo which takes place in the embryonic spot

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of the fecundated ovum is a change which provides for the formation of the brain and spinal cord. In the external blastodermic membrane a longitudinal groove is formed called the medullary groove. On either side of this groove extending finally along its entire length,the blastodermic membrane grows upwards, forming a fold, the dorsal plates, one on each side, and by continued growth they approach each other from side to side and finally meet and grow together above the longitudinal groove, converting it into a canal, and in its cavity the brain and spinal cord are developed by a growth of nervous matter from its internal surface. If these dorsal plates fail at any point to unite above, closing in the medullary groove, the brain or spinal cord at that point cannot subsequently be properly developed, nor the bony covering of the part be complete, the condition which existed in this case.

Now these dorsal plates, medullary groove and canal are all forming during the second week of gestation and the cerebral vesicles from which different parts of the encephalon are to be developed, are forming during the second and third weeks, precisely at the time so far as we can determine, when she received the fright and at the time when they would be deformed easiest; that is, in their earliest development. Sincerely,

C. T. DIGHT.

SHOULDER PRESENTATION—ADHERENT PLACENTA.

ST. LOUIS, April 7, 1885.

EDITORS COURIER: — Friday, March 27, 11:30 P. M., I was called in great haste to see Mrs. L., a multipara, in labor. When I arrived I found a twin pregnancy; first child had been born an hour previous to my arrival, and the midwife in attendance could proceed no further with the delivery. Upon examination I found the left shoulder and arm presenting, left hand at vulva, head in right iliac fossa, pains strong and frequent, child apparently dead, as the midwife had wasted one precious hour. The midwife stated that she thought nature might complete the labor. I succeeded in bringing down both feet and turning, after which the child was easily born, dead however. I

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congratulated myself that the worst was over, but was mistaken. Patient was rather exhausted even at this time. After waiting a while for placenta, and deeming it safer to end labor soon, I attempted its removal by Credé's method, thinking the delay due to uterine inertia. It came not, however, and I then proceeded to remove it manually. I found a very large and extremely adherent placenta. By careful manipulation I finally had it all loosened; the womb contracted well, and I was gratified to note that there was no serious hemorrhage following.

There was only one placenta and two umbilical cords. Patient was very much exhausted, extremities cool and skin clammy, pulse rapid and weak. I gave a guarded prognosis and felt a little dubious about the progress of the puerperal state. I, of course, used all precautions possible and am pleased to say that everything went on much better than I dared hope. Patient discharged, well, April 6.

EUGENE F. HAUCK, M. D.

TREATMENT OF THE AFTERBIRTH.

OMAHA, NEB., MAY 14., 1885.

EDITOR COURIER:—In normal labors the indications undoubtedly point to the expectant method in the delivery of the afterbirth. In such cases the natural powers are always sufficient to completely expel the secundines. Credé's method is not only unnecessary, but decidedly unfavorable to an uncomplicated convalescence.

Through active interference the placenta is sooner removed; but it very often interferes with the loosening of the membranes. These are often torn leaving pieces behind, which are usually the cause of puerperal hemorrhage, prolonged bloody lochia, or septicemia. Inversion of the womb may be, and probably often is, the result of Credé's method.

If however, we leave the placenta to nature, it will be gradually loosened, and slowly but more completely expelled. Flooding is usually prevented, and the lochial discharge does not last as long, and is less bloody than otherwise.

As a matter of course the third stage is prolonged in this method, lasting as a general thing about one, and often two hours before it is completed. The average duration in twenty-four cases treated

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after this method was fifty-four minutes. The longest one hundred and twenty-five, the shortest fifteen minutes.

After the expulsion the uterus should be washed with a weak antiseptic solution.

I use the following:

℞ Hydrarg. bichloridi, - - - - - - ℥ss
Tr. alkanet, - - - - - - - ℥j
Alcoholis, - - - - - - - - ℥ij M.

Sig. Poison. Two teaspoonfuls in one pint of warm water. Injection.

The genitals are examined, and any lacerations stitched if necessary.

The uterus need not be watched as puerperal hemorrhage is a rare exception. No more injections are necessary.

The expectant method is not the popular one, as I have reason to know, but that it is the right one I am sure.

W. G. KEMPER, M. D.

MENTAL VAGINISMUS.

SCHULENBURG, TEXAS, March 27, 1885.

EDITORS COURIER:—Your unique case of what Dr. Bauduy terms "Mental Vaginismus" in your March number, reminds me of a case which happened twenty or more years ago in your city (St. Louis). An acquaintance of mine married, and similar manifestations as described by Dr. Bauduy, i. e., abhorrence to all sexual approaches by her husband and maneuvering toward the non-execution of sexual intercourse were manifested by her. Mother, mother-in-law and other female relatives were "brought into play" and the family physician consulted, all to no purpose.

The unfortunate husband almost despairing, at last took initial steps for a divorce. This seems to have effected a cure, for nothing was heard of the scandal, for such it had become, afterwards. She is the mother of several children to-day.

F. C. SCHIMTT, M. D.

THE AMERICAN NEUROLOGICAL SOCIETY will hold its eleventh annual meeting in New York June 17, 18 and 19.

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